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ORIGINAL ARTICLES.

THE SURGERY OF THE ABDOMEN, WITH SOME OF ITS RESPONSIBILITIES.

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(*Concluded from page 625.*)

THE SURGICAL MANAGEMENT OF TRAUMATIC PERITONITIS.

Acting on the good old maxim that "an ounce of prevention is worth a pound of cure" we have endeavored to dispense with therapeutic measures formerly in vogue, in the treatment of peritonitis, by resorting to operative interference in wounds within the abdomen, and have generally succeeded, but unfortunately, lost most of our patients. Septic infection can be absolutely prevented by flushing with antiseptic fluids, and by drainage. But reliable antiseptics are all irritants, unhappily, and leave everything they come in contact with, more prone to adhesive inflammation than ever. Further, antiseptic flushing has been so often followed by mortal collapse, that now, many distinguished operators, have discarded it altogether. The means taken to save, then, will often destroy the patient's slender chance of recovery. Hence we must regard laparotomy under those circumstances, like a hip-joint amputation, always as a capital operation, of the first magnitude.

We still read of the many and varied methods devised by ingenious and enthusiastic surgeons, for the purpose of simplefying the technique of intestinal operations. I shall not readily forget the impression Prof. Senn made on myself, when I listened to his original and famous monograph on intestinal surgery. The vivid and seductive manner in which he portrayed the great number of experimental operations within the peritoneum, from a mere puncture, to the excision of many yards of intestine, completely amazed and confounded his audience, as it has since, a large part of the medical world.

From thence what could the surgeon do, when perforations are suspected, but cut down; and if he found a considerable segment destroyed, cut it out, and oppose the divided ends, throwing a fold of mental graft over the annular seam; or if necessary go above or below as the case might be, lay open the intestinal walls, *tête-a-tête*, restoring the bowel's continuity by making an opening in each, and adjusting these margins with some kind of absorbable collar. But I have found from personal experimentation on the intestine of the dog, that no reliable clinical inferences, could be drawn from such operations. The canine suffers but little shock, when the abdomen is opened, and owing to the great thickness, and remarkable tensile strength of the gut, it can be readily manipulated without laceration or injury. With them we have total want of mental association, with their physical condition. The element of psychological influence, as a factor, in the way of fear, suspense and apprehension is absent.

Further, extensive, prolonged and most searching observations on experimental intestinal surgery were made in the early part of the present century; in England, by Calison, Bell, Travers, and Hennan, and in France particularly, by Joubert, Gelly, and Lembert; the latter who first used the suture associated with his name; on animals, but never on living man; but these investigations were not largely extended to the human family and were condemned, with general accord. Wounds of the peritoneum have from time immemorial been regarded with most serious apprehension; for lesions in this situation of a traumatic character, always have been attended with a great mortality. With the aid of ether it was hoped that the shock might be diminished, and with antiseptics infection prevented. It was soon found, however, that anæsthetics and antiseptics have their dangers. The pump-like action of the diaphragm in men seriously interferes with primary union.

Again, the very large incision in the median line necessary for purposes of inspection, leaves a tendency to hernia, for it must be remembered that a very large opening must be made for the extrusion of the intestines, and especially if any of the fixed viscera are wounded. The bowel after repair must enter its abode, through the same aperture by which it came.

Very much has been said about the short time occupied necessarily, when advantage is taken of modern methods, so-called, in doing an intestinal resection. This is perhaps, most loudly proclaimed by those who have never done an enterectomy on a human being. They allege that fifteen or twenty minutes are ample. These statements are most delusive and dangerous. I believe I am within the limit, and close to fact, when I say that the surgeon doesn't live who can do full justice to his patient, and perform an operation involving the resection of a wounded intestine, in less than *two full hours;* timing the operation, from when the original incision is made to the completion of the dressings. This isn't any haphazard assertion, for I have timed myself, and some of our best known surgeons; with perfect light, every possible facility, and a corps of trained assistants.

There are many almost insurmountable obstacles in the way of surgical treatment of those cases under consideration, by laparotomy.

The profound constitutional disturbance, collapse, and prostration, make immediate interference, extremely hazardous; whereas if we wait for full reaction and hold off many hours, active inflammation with all its embarrassing complications will menace us.

Along with this, now the patient has marked bodily weakness; low in spirits, and has a most pronounced aversion to every sort of surgical aid which contemplates the least mutilation. Added to this, the subcutaneous tissues have become congested and œdematous, and the inflamed bowel enormously distended. Adhesions will be found, in every direction.

Now it may be urged on theoretical grounds that many of those penetrating wounds are inevitably fatal if we treat them on conservative lines, and decline to actively interfere. How extensive an injury the abdominal viscera may sustain, and recover from, can only be determined by practical observation, and the accumulated experience of many investigators. We have had too many well authenticated instances of intestinal penetration, by missiles, to have any doubt about the wonderful, recuperative, power of the alimentary tube.

The stomach after a full meal has been torn through by a projectile, as in Hinton's case, wherein a young man was assaulted with murderous intent, by his mistress, immediately after breakfast, the grumous mass flowing copiously through the aperture of entrance. With rest, moderate doses of opium and topical treatment he made a good and rapid recovery, and with no fistulous opening remaining.

It is said that an injury causing a laceration of the gall-bladder, or its ducts, with bile extravasation was always fatal. But Paroisse has reported a case in which a man was stabbed in the region of the liver, wherein after the wound closed painful abdominal distensions followed. Paroisse tapped him three times removing, more than four gallons, of pure bile. The patient recovered perfectly.

Having detailed some of the serious dangers which menace the patient, when he sustains a penetrating wound of the intestine, and a few of the difficulties which lie in the way of treatment by recent methods; let us see how cases do in which the innovations of modern surgery are largely dispensed with, and the warnings of a past generation of renowned military surgeons is not entirely unheeded; when more is left to nature. At first sight this seems not only perplexing, but incomprehensible; though on second thought, when the processes of repairs are carefully studied; when the structural elements, the physiological peculiarities are carefully borne in mind the problem is capable of a simple solution, which I will endeavor to explain, as I regard it.

A man being shot, the ball penetrating the peritoneum, divides a blood-vessel or intestine, in transit. For the instant, it would seem as though, simultaneously with the flash of the explosive, life was annihilated. The victim staggers, reels, and falls. For a few seconds he seems actually dead. The cerebro-spinal centres are palsied, and there are no manifestations of life, except now and then a feeble gasp, and a flickering, intermittent pulse. The features are sunken and he is deathly pale. The skin is covered with a cold clammy perspiration; the body is limp and motionless.

An intestine is perforated. If this is the case, then we must have a free communication from the bowel into the peritoneal cavity.

Not necessarily, by any means. In the first place, because the gap in the gut is at once filled in, more or less completely, around the circumference of the wound, and secondly, because, there is, physically, no such thing as a cavity within the abdomen. All its contents lie in close contact, the parietal muscles, maintaining a constant, uniform, unremitting pressure, on all the viscera.

Bearing in mind a well known law in natural philosophy, with respect to liquids always flowing in the direction of least resistance, we can understand, why there is not in every case of intestinal puncture a free escape into the adjacent parts. We do not have it, because the pressure is as great, without as within the lumen, of the intestine. But little air can enter through the bullet-track, as its walls fall in, and collapse. It would be fair to assume, however, in spite of this salutary provision, that when peristaltic action would commence, it would seriously disturb the quiescent state, so essential to recovery. It is interesting to note just what does take place. When a limb or organ is maimed, it at once

assumes a passive state; tolerating no disturbance or motion without enduring the most torturing pain. We witness the intestine respond to the same identical law; as when wounded, active vermicular motion instantly ceases. It is the same in all acute congestions or inflammation of it. As a consequence we find our patient persistently constipated, often for many days or even weeks, in peritonitis, with perfect impunity. Not a few laparotomies have been done in such cases, under the supposition that there is some mechanical impediment obstructing the bowel; but failure to find a constriction and verify it, promptly, post-mortem, demonstrated this peculiarity of the intestinal tube when inflamed, with its serous-coat.

Hæmorrhage within the peritoneal cavity in moderate quantities, is promptly absorbed.

Constitutionally the patient should be kept on low diet free from pain; and at ample rest, under all circumstances. Before closing this part of our subject, it is necessary, to give by figures, the actual mortality attending those cases which we have considered. I quote from one of the most reliable contributions lately published, by one of our most enthusiastic and able advocates of surgical interference, and a man of rare and commanding attainments.

Dr. Stimpson gives the results of treatment by interference and non-interference in cases which occurred in New York City prior to October, 1890. He says of laparotomy for gunshot wounds of the abdomen, that it was performed on thirty patients with a mortality of 83.66 per cent., or one recovery out of six. There were treated in different hospitals of the city in the preceding ten years 37 cases of the same class of wounded, by non-operative interference with 17 recoveries and 20 deaths, or 45.94 per cent. cures. He quotes the French surgeon Minier's reports of the late campaign in Tonquin, of gunshot wounds of the peritoneum in 63 cases treated by expectant plan; 53 deaths or mortality 78 per cent. Such then is the actual status of the operation for penetrating gunshot wounds of the peritoneum.

Dr. Stimpson argues that many of those reported as cured by conservative methods, may not have been penetrating wounds, and should not be placed in that category. That seems to me, however, begging the question. Those records come from the hands of skilled and experienced surgeons; who inasmuch as they scarcely thought of operative interference when they made their diagnosis, were not swayed by any bias. The impartial observer must acknowledge that Prof. Stimpson's essay, gives no good ground for encouragement, for the future. Nothing is offered, or is demonstrated to show how the attendant dangers of laparotomy can be obviated.

Dr. Stimpson in closing his monograph, in question gives cold comfort to those of us who look for a hopeful future, for laparatomy. He says, "In the present state of our knowledge, it cannot be said that interference or non-interference should be the rule, in practice, and the surgeon may be guided by his own convictions, and feelings, whether they lead him to seek as much good, or only as little harm as possible."

This short paragraph epitomizes the whole subject. Hence, when we are called on to deal with those terribly serious cases, we should proceed slowly and cautiously; never to advise or perform any sort of exploratory-incision in penetrating wounds of the abdomen, which may put our patient's life in further peril, and perhaps remove his only hope of escape from death, without the advice and assistance of the most skilled and experienced consultants; for it has, in more than one case, within the past few years, been a question for juries to decide, whether the deceased came to his death in consequence of a murderous assault alone, or whether surgical interference, did not deprive the victim of his only chance of recovery.

Let us hope that after another decade of years; with greater experience and extended knowledge of the pathology of those lesions, with a better appreciation of the therapeutic requirements, our results may be more encouraging.

THE PATHOLOGICAL SURGERY OF THE PERITONEUM AND ITS ENCLOSED VISCERA.

Although I have had considerable experience with traumatic lesions within the abdomen, and did the third successful laparotomy for penetrating and perforating gun-shot wound, involving the intestine in the city of New York, yet owing to a sort of traditional impression, and I believed a sound knowledge of the pathology of derangements in this region, I was loath to take up the scalpel, until I was convinced that other remedial measures, local and constitutional, were powerless, and the efforts of nature were futile. But within a year, several circumstances conspired to induce me, to take a somewhat different view of the matter. Abbé, of New York, had devised the catgut-ring, and reported successful cases of operations requiring intestinal anastomosis on the human subject.

I had the pleasure of listening to the almost unanswerable argument of Dr. J. A. Baldy, of Philadelphia, at our late convention in Newport, on the "Surgical treatment of peritonitis." Added to this my medical friends, were sending me cases, for the express purpose of having laparotomy performed.

The contagion was spreading, and I was being consulted outside of the hospital, for obscure abdominal lesions.

With the rather unanimous accord on the question of abdominal section, I began to feel that after

all, my conservatism, had gone too far, so I decided to give the next case which came under my observation, the benefit of this catching innovation. I did not have long to wait, as the very day after my arrival home from Newport a woman came to me to have laparotomy done, if necessary.

Case 1.—Patient a well nourished person, 35 years old. She had steady pain over the liver and had noticed her abdomen greatly enlarged. Dr. Hoffeimer who brought her to me suspected malignant disease of the liver. That was my conclusion after examination. Inasmuch as I could not give an absolute opinion, and she was desirous of making most any sacrifice to know, a few days later in the Harlem Hospital, I did a laparotomy, and found the liver, one solid cancerous mass. She rallied well, from the operation, which was a very simple one, but died on the evening of the second day from prostration.

Case 2.—Dr. A. C. Cox sent a man to Harlem Hospital, who had obstruction of the bowels for eight days. The fellow's general condition was good when I saw him, except for some fæcal vomiting. As the doctor had exhausted the usual remedies, and sent the case to the hospital for a laparotomy, I did not have much discretion, in the matter, and went on and did an abdominal section. I found a short loop of the small intestine nipped by a thin constricting band and presuming it to be gangrenous, I cut it away, and did a circular enterrorrhaphy. There was no peritonitis present. Result: patient never rallied, dying early the following morning from exhaustion.

Case 3.—A man was brought into my ward in the hospital with general-peritonitis; transferred to me, from the medical division. His general condition was very bad. On opening through the right semilunaris a perforation of the caudal appendage was discovered; but it had formed firm adhesions with the caput-coli. Everything within the abdomen was pus-soaked. Pockets of pus were found in every direction; all the viscera being bound together in one compressed mass. Recent adhesions were broken up, the abdominal cavity flushed and drained. The patient felt rather better after the operation, but died on the following day.

Case 4.—Strangulated inguinal hernia; man 52 years old. One yard one and one-half inch resected for gangrene. The man rallied well from the operation and gave every promise of recovery, but died rather suddenly on the evening of the third day. At an autopsy a leakage was found in the line of suture near the mesenteric insertion.

Case 5.—A young man having been run over by an ice wagon was brought to Harlem Hospital complaining of severe pains over the right hypochondriac region. The usual topical applications were applied. On the eighth day he was up and about and desirous of leaving the hospital. But the visiting physician thought it well for him, to remain a day or two longer. On that evening he secretly induced the orderly to give him an enema. The next day, and day following he was in great distress, from an enormously disturbed abdomen. I opened the belly on the right of the rectus abdomenalis muscle and more than two gallons of bile flowed away. We found a rupture of the ductus communicus choledicus near the junction of the pancreatic tube. Old adhesions were found about the seat of leakage. It was evident that nature was doing the work of repair when the strain of the large rectal injection tore up, the walling, in which nature had provided, with the result described. A cholecystotomy or a cholecystectomy was altogether out of the question, as everything was welded together by adhesive inflammation, besides, the flagging pulse warned us to desist from further manipulations. He died thirty hours after laparotomy.

Case 6.—An aged physician who had strayed away from his regular brethren, into the homœopathic camp had ailed for some time. At first he fell to treating himself with electricity,—with which he believed he could cure anything—with great diligence and regularity until his wife a most estimable and observing lady, seeing that it rather aggravated his condition made him desist, when his homœopathic *confrères* took him in hand. After a time, I was requested to assume charge of the case, when I recommended Prof. Gerster for consultation, and to operate if necessary. An exploratory incision was performed. To say it was done by Prof. Gerster is enough to warrant that no antiseptic precaution was omitted. The doctor never rallied, and died thirty hours after. On post-mortem cancer of liver was found. I should state, that at the time of operation, the gall-bladder was found greatly distended, from which nearly a hundred gall-stones were removed, of various sizes.

Case 7.—The patient was a man 30 years old; was brought in by the ambulance, for operation, for treatment of a strangulated hernia. The intestine nipped was discovered to be gangrenous in patches. Ten inches were cut away and lateral anostomosis performed with the Abbé ring. The operation was rapidly performed though it was somewhat complicated; as the sphacelus involving the bowel, extended up close to the immoveable cæcum, and I was obliged to open freely the lateral abdominal wall, to make space for manipulation, and for the return of the gut, with the catgut apparatus, which was of considerable size, making a bulky, awkward mass to handle. Our man nearly sank on the table, but after his return to bed recuperated fairly well, though never fully regained consciousness, and

died the following night. On post-mortem sound union was found, over the seat of anastomosis. Not the slightest trace of septic peritonitis was present.

With this mortality record, in seven consecutive cases, it is scarcely a matter of wonder, that I am very skeptical, when I hear it proclaimed, that no delay should be made, in making an ocular inspection of the abdominal contents, in that class of cases, wherein, diagnosis is obscure, or difficult; in those, whose pathological condition, is invariably fatal, by its very nature; and especially in female diseases, which usually will yield to hygienic and constitutional measures.

It may be contended that all of my cases of last year, were surely fatal, any way. I will admit this of cases Nos. 3, 4, and 7, but not of Nos. 1, 2, 5 and 6.

Since last June I have had two cases of obstruction of the bowel, in my own practice, one of six days' and one of nine days' standing; one woman and one man, treated by non-interference, with good results, and was called in consultation in two others; one being Dr. Jas. Moran's and one being Dr. A. J. Fitzgerald's patients; one of five days, and the other, nine days; obstruction in the latter, acute peritonitis; I advised against operation and both recovered.

With our patient who died after operation for internal strangulation, the constricting band gave way very readily under the finger nail, and I am not sure that the bowel excised might not have been safely returned to the cavity of the abdomen.

In Case 5, though the gall-duct was ruptured, I do not see, why the effusion of bile, if drained away with the canula should in itself compromise life. Varoisse has proved by his case that this is possible.

The peritoneum in woman, in fair health, will tolerate most any sort or degree, of mutilation in the removal of morbid growths and accumulations. But even if they do survive the operation, let us not close our eyes to the state of things which follow as a sequence, bearing in mind the proneness of the peritoneum to take on adhesive inflammation on irritation of the most trifling description, much less the violent and protracted, bruising and tearing, which is often done in the operations on the female. That this is no exaggeration is settled beyond question, by the present indications; by the collapse of the laparotomy boom, the craze which was gaining a mischievous prominence, but which is now condemned by many of its former, and most brilliant advocates. A grand future seemed to have opened for intestinal surgery; but its application to the human subject, has a very limited range.

In reporting my last fatal case of resection of the intestines, in the Academy of Medicine, I said that I had never heard of a case, in a male, in which the patient survived an operation which entailed the resection of the gangrenous gut, in strangulated hernia. Dr. H. C. Dalton, of St. Louis, who was present, stated that Dr. Prewitt, of St. Louis, has such a case with recovery, but that it had not been reported. Since then Dr. Dalton very kindly sent me Dr. Prewitt's notes on the case. Dr. Prewitt performed the operation on November 20, 1888, removing ten inches of the intestine, and his patient left the St. Louis Hospital three weeks after the operation a well man. The doctor says "he disappeared after the operation, going on to Indianapolis, where he has done hard work constantly since with the pick and shovel, now nearly two years, and has not worn a truss."

NON-OPERATIVE METHOD OF TREATING ABDOMINAL DISEASES.

No one, I am sure, will deny, that of late, we have been going too far with operative interference in those pathological conditions peculiar to woman, neither am I satisfied that the new nomenclature of these maladies has tended to a clearer elucidation of their real pathology.

Modern authors tell us that pelvic cellulitis is a misnomer; that a localized collection of pus is not phlegmon; besides, they have given to a very simple and common variety of affections, designations, of a most complex, unpronounceable and meaningless character; to give their Greek or Latin derivations, I am sure, some who use them most frequently, could not do. But they are novel, catching, and mysterious to the simple, and unsophisticated. As a matter of fact, exclusive of those conditions, dependent on a malignant nature, and ovarian cysts of great volume, there are few diseases occasioned by pathological mutations within the peritoneum, which are not amenable to medical treatment.

Those congestive, inflammatory, and suppurative processes encountered here, can, in the vast majority of cases, be successfully managed, I believe, witnout the use of the scalpel. I certainly do not mean to imply that there are not cases, which may demand surgical aid, or that there are not often afflictions when this may be resorted to for temporary relief, and in shortening the course of a painful, chronic malady, but what I do insist on, is that cases within this category are very rare. If we had much doubt about this we might simply examine into what threatens to be the next panacea, which will do in woman's pelvis, what it cannot elsewhere; which will soon displace laparotomy, and which we all know, exclusive of its psychological effects, possesses little utility. However, we must admit that electricity, in some respects, has been a real Godsend, in the way of diminishing the practice of laparotomy, in those cases which rapidly cure themselves if left alone.

These being my impressions, on what I regard as the essential difference between the treatment of pathological lesions, by surgical and constitutional measures; here as in traumatisms, an operation, involving the division of the perineum, should never be performed, until all ordinary remedies fail, and never without a consultation. The patient herself should also be fully informed of its immediate dangers and remote results.

CONCLUSIONS.

1. Enough has been considered in this article, to admonish us, to proceed with caution when we contemplate an operation, which involves an abdominal section.

2. The melancholy statistics, of interference in gunshot or penetrating wounds of the abdomen, must not be unheeded, and operators should proceed slowly with exploratory incisions, until the art of diagnosing and localizing lesions within the peritoneum has reached greater perfection, than at present, obtains.

3. The varied modern tests of intestinal laceration having been proven to possess no substantial value, as we are yet without means of determining whether or not the intestinal tube is wounded; where, or to what extent, and hence we are unable, to intelligently direct, remedial measures.

4. Though anæsthesia and antiseptics have been a precious boon to mankind, and have lent their aid in the entire revolution of surgery, still it does seem that our progress to-day, in dealing with serious abdominal wounds, or lesions, is but a little in advance of the eighteenth century; and this must be so, while we are in doubt, as to the nature and extent of the lesion, and have no way of estimating the degree of shock, which sundry individuals possess.

5. While in penetrating wounds of the intestine, the indications for treatment from a mechanical standpoint, are clear, to fulfil those, without compromising life, is the difficulty, which yet remains.

With the limited time allotted me and the manifold and varied pathological mutations within the peritoneum, I have been able to, but touch on a few of the most common here, situated.

I have endeavored to demonstrate that very many acute affections may be safely limited to medical treatment, without any surgical aid; though I do not ignore the fact, that in the hands of the skilled and experienced operator, many of those grave cases are the safest; and that there are not a few in which the surgeon's aid is imperatively demanded. What I wished to combat, was, that surgical should not be the only treatment, and the prevailing impression that abdominal operations are not always serious. I wished to strongly emphasize what has lately occupied my attention, viz.: that a recovery from an operation was not a cure, in any sense.

I have regarded very many of our modern operations as not only reckless mutilations but an interference, vicious, and unnecessary; which are invariably followed by most serious consequences, to the patient. I am not aware that Christian or civil law authorizes, or justifies us, in unsexing a woman, unless her life is in positive peril, or without her own and nearest relations' full consent.

It is incontestable that in these days, when the contest for bread is close; and with our profession which gives gratuitously more in the way of free service than any other, the temptation to do those operations, which pay large fees, is very great; especially when the contingent fee is always in hand, whether the case goes ill or well.

The most valuable operations are the simplest. But after all, the mere manual part, in my mind, is the inferior; as the real art, lies in knowing and recognizing when the time comes, that nature is powerless and the scalpel must be taken in hand.

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A NEW ANTERIOR CHAMBER SYRINGE.

Read in the Section of Ophthalmology at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

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At the last meeting of the American Ophthalmological Society, in a paper on "Irrigation of the Anterior Chamber," I described a syringe which I had employed in fifteen cases of cataract extraction and in two cases of hypopyon. Since that meeting I have continued this method of cleansing the anterior chamber in the two classes of cases referred to, with what I am inclined to think very favorable results.

A large majority of the cases of hypopyon which we see in Pittsburgh, judging at least from my own experience, arise in connection with cor-

neal wounds produced by pieces of coal. Whether owing to some malignant quality in this substance, or to malnutrition incident to the occupation of the miner, hypopyon thus originating is a very serious affection, and its tendency is to destroy the function and even the appearance of the eye. Notwithstanding the most conscientious application of the usual remedies, viz.: bichloride of mercury, atropine or eserine or both, hot water, the actual cautery, and incision of the cornea, the morbid process is apt to lead to large anterior synechiæ, abolition of the anterior chamber, and more or less flattening of the globe. In these cases there is nearly always plastic iritis with the formation of masses of degenerated lymph, mixed with pus, which adhere with great tenacity to the intraocular tissues, and require for their dislodgment the introduction of some form of instrument into the eye.

These accumulations are removed by the syringe in a very satisfactory manner. I am in the habit of introducing the nozzle through a moderately large corneal incision, and then letting the current run steadily until the chamber is perfectly cleared, in the meantime moving the nozzle about in various directions, especially directing the stream against that part of the inner corneal surface which is opposite the area of ulceration, and even rubbing this surface with the smooth tip of the nozzle. At the same time I do not hesitate to break up by means of the nozzle all iris adhesions which do not seem very resistant. After the anterior chamber is thus thoroughly cleansed, the ulcerated surface is well cauterized, and the usual treatment instituted. Surprisingly little reaction follows the operation, and the results are better than I formerly ventured to hope for in the form of hypopyon in question.

I am strongly inclined to believe that the introduction, or rather reintroduction, by McKeown and Wicherkiewicz, of the practice of washing cortical remains out of the anterior chamber in the operation for cataract, marks a distinct advance in ophthalmic surgery. During the past year and a half I have made use of this procedure in forty-nine out of fifty-two extractions; and, although my statistics are not yet ready for publication, I may say that the results obtained appear to fully justify the adoption of the measure. In the whole series there was no serious case of inflammation following the operation, certainly none that militated against a good result. There was one case of failure due to escape of fluid vitreous produced by the violent restlessness of the patient, who was withal extremely deaf. But even in this case there was no reaction, and at the end of a week all the external appearances were those of a perfectly successful operation. The healing process in the other cases was so uniformly smooth as to scarcely cause me an anxious thought.

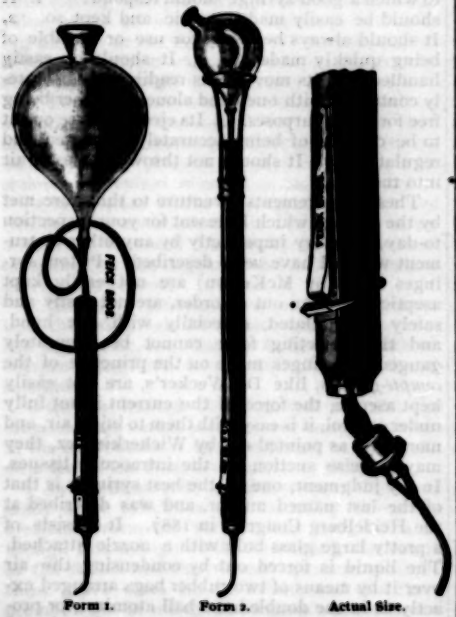
The visual acuity obtained was, from the standpoint of my own experience at least, unusually good, and this without the necessity of resorting (except in a few cases) to a secondary operation on the capsule. For example, $\frac{1}{3}\frac{0}{0}$ and better was reached in about 50 per cent. of the cases without subsequent discission. In a large proportion of those with visual acuity less than $\frac{1}{3}\frac{0}{0}$, the defective sight was not due to opacity of the capsule, but to opacities of cornea and vitreous, and various pathological conditions in the fundus, such as atrophy of the optic nerve, choroidal disease, etc., all of which could be as accurately studied as if the lens had been removed in its capsule.

While it is true that good instruments are not the only requisites for a good operation, it is also emphatically true that, in ophthalmic surgery at least, good instruments are essential to the accomplishment of the best work, and the matter of irrigation forms no exception to the rule. I may be permitted to quote from the article referred to the following passage giving the tests to which a good syringe should respond: "1. It should be easily made aseptic and kept so. 2. It should always be ready for use or capable of being quickly made so. 3. It should be easily handled, and its movements readily and absolutely controlled with one hand alone, the other being free for other purposes. 4. Its ejecting force ought to be capable of being accurately estimated and regulated. 5. It should not throw bubbles of air into the eye."

These requirements I venture to think are met by the syringe which I present for your inspection to-day, and very imperfectly by any other instrument which I have seen described. Piston syringes (used by McKeown) are not easily kept aseptic, are often out of order, are not easily and safely manipulated, especially with one hand, and their ejecting force cannot be accurately gauged. Syringes made on the principle of the *compte-gouttes*, like De Wecker's, are not easily kept aseptic, the force of the current is not fully under control, it is easy with them to inject air, and moreover, as pointed out by Wicherkiewicz, they may exercise suction on the intraocular tissues. In my judgment, one of the best syringes is that of the last named author, and was described at the Heidelberg Congress in 1887. It consists of a pretty large glass bulb with a nozzle attached. The liquid is forced out by condensing the air over it by means of two rubber bags arranged exactly as in the double hand-ball atomizer for producing continuous spray. The only objections I make to this syringe are that it must be awkward to manipulate, and the force of the current must be an unknown quantity.

The syringe which I have used during the past year is a modification of that described in the paper referred to the beginning of this article. A small reservoir is fixed by a metal framework to

the upper end of a hollow hard rubber handle, through which runs a piece of rubber tubing attached at its upper end to the reservoir, while the lower is armed with a curved gold nozzle which fits firmly into the lower end of the handle and is removable at pleasure. The current, whose force depends on the height of the column of liquid, is retarded or stopped by pressing a short metal piston down upon the tubing with the index finger. The length of the whole apparatus is about eleven inches. In using the instrument no assistant is required, and for washing out cortical remains, the current is as strong as is consistent with safety. In hypopyon cases, however, we may require, and it is perfectly safe to use, a much stronger current; and for them I use the original form of the instrument with a longer bit of tubing and a larger reservoir, the latter being held by an assistant, or attached by a sliding clasp or ring to an upright post. It is safer to have two distinct instruments, one for cataract and the other for hypopyon cases.



Form 1. Form 2. Actual Size.

THE PRIX BÉHIER.—The Faculty of Medicine of Paris have authorized the acceptance of 30,000 francs, a legacy from Madame Béhier, the income of which is to go to furnish a biennial prize to be known as *Prix Béhier*, for work in medical pathology.

FEEDING THE YOUNG.

Read in the Section of Diseases of Children at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY O. H. PHELPS, M.D.,
OF BLOCKSBURY, CAL.

It goes without saying that a large majority of the children who die under the age of 5 years perish from diseases of the alimentary canal, and in large cities the rate of mortality is such that even Maltheus would doubtless call a halt. That other causes than bad feeding come in for a share in the work of fatality we will not deny, neither will we discuss them in this paper. That bad feeding is the principal cause is fully borne out by the writer's observation and experience.

What is bad feeding? Mother's milk when the mother is herself badly fed all through the period of gestation and lactation; when her alimentary canal contains more or less fermenting material from excess of undigested hydrocarbons; and her whole dietary lacks tissue building material to fairly support her own body, much less that of her child. A hungry man is quarrelsome and discontented—see the Irish people fed on potatoes. An under-fed mother is weak, nervous and fretful, and the effect of this alone is often disastrous to her child. The writer recalls a case where the child several times nearly perished in convulsions caused by an explosion of anger in the mother who was badly fed, weak, and nervous. He advised weaning the child and the trouble ceased.

We will not discuss the proper feeding of the mother here, but would refer to a little book by Dr. E. Cutter, of New York, "Food in Motherhood," which we heartily commend for its treatment of this important subject.

A very common practice prevails among all classes of people of feeding solid food to infants 2 months old and upward. Sometimes they commence younger. That the digestive organs are not sufficiently developed to digest solid food is indicated by the lack of teeth to masticate with. And this may be taken as a safe guide as to the proper time to commence giving solid food. And if the child is bottle fed, sugar is usually added to the milk to assist in the alcoholic and acetic acid fermentation, and as a logical sequence of such outrageous feeding nature throws up the sponge and the doctor is called who often has to follow suit. Emaciation, colic, acrid dejections passing through the bowels, a burning seething liquid mass, only a little less irritating than molten lead.

How shall we feed to avoid all this?

First, don't give mother's milk, if it is bad milk. Don't ruin the child's digestion by persistent nursing when it is evident the mother cannot furnish good milk. Don't give impure cow's milk, and good or bad don't put sugar in it.

Don't put starchy food into the child's—shall I say yeast pan?—unless you want more yeast, more colic, more cholera infantum, more dead babies.

Pure cow's milk sterilized will usually be well borne, if the digestion has not previously been ruined. This failing give beef essence and pepsin.

The writer has usually had indifferent success with the so-called infant foods of the shops. A child that can digest the best of them can as well or better digest a gruel, made of milk slightly thickened with meal made from twice baked bread. The bread made of entire wheat flour, is best when it comes with the advantage of cheapness and known purity, which cannot always be said of commercially prepared infant foods. There are some nice formulas for taking out a portion of the caseine from cow's milk and otherwise making it as near like mother's milk as possible; all of which are good on paper, but often very impracticable to be carried out, among the majority of the clientele of the busy practitioner. Some cases from practice will illustrate some of the results of bad feeding and their treatment.

Case 1.—Hattie C., æt. 2 years. I was called February, 1878. Was met with a diagnosis from the mother, "Doctor, my little girl has worms and we want some medicine to remove them, our remedies have failed." Child anæmic, bowels bloated and constipated, weak, nervous and fretful; sleepless and occasional slight convulsions; breath sour and tongue coated. "What does she eat?" "Appetite poor, but eats of everything the family has: potato, turnip, of which she is especially fond, bread, coffee, etc." Treatment, a mild cathartic to unload the bowels. All solid food strictly prohibited, and lime water and milk *ad libitum*. Child improved rapidly and mother rejoiced at so rapid recovery. At a subsequent visit mother inquired when she could let the child eat everything. "Not till she is 5 years old." Counselled her to keep her on milk.

Was called again in April. Child in same condition as at first, and with a woeful face the mother declared the worms were at work again, and while relating the sad tale the little subject came in from the kitchen with the worms in both her hands—cold cooked turnip which she was eating with a zest. The former course was repeated, and the child made a good recovery.

Case 2.—Mrs. H., brought her infant of 3 months on a pillow from her home twenty miles away. At first sight it seemed almost moribund, and had hardly strength to make its pitiful wail audible. It was a bottle-fed baby, and plenty of sugar had been added to the milk and oatmeal gruel that it was fed on. The child was emaciated almost to the last degree, and in constant pain. Took the bottle often and would be quiet for a while after feeding, or as long as the carbonic acid from the fermentation acted as a soporific. Bowels very loose, discharges green, foaming and acrid, making surface raw wherever in contact. Took away all food for eighteen hours and gave warm water and salicylate of soda, then gave sterilized milk from which most of the caseine had been removed, and lime water. On the fourth day gave in addition a little beef extract. In ten days the child was taken home much improved, and was soon able to digest plain milk. Sugar was prohibited. Child made rapid recovery, and when last seen, five months ago, was a fine vigorous boy.

Case 3.—Willie M., æt. 2 years. March, 1888, child pale and anæmic, tongue coated, breath sour, bowels loose with green, acrid discharges; had constant cough. Parents alarmed, thinking it had consumption. Could not take milk; was fed on oatmeal and sugar, potatoes and bacon, in fact anything its vitiated appetite craved. Treatment: positively prohibited all starchy foods; gave beef essence and pepsin for a week, then added sterilized milk and lime water. Cough soon ceased. Bowels became natural and digestion improved. Made rapid recovery.

These will suffice to illustrate some of the conditions brought on by bad feeding. Very little medicine is needed in most cases. When indicated pepsin and salicin may be given. It is also desirable to flush the colon with warm water frequently.

The proper food is milk up to 2 or 3 years of age, after that bread made from entire wheat flour (fine wheat flour is deprived of most of the tissue building material contained in wheat), milk, eggs, lean beef and mutton, fruit without sugar; in fact sugar not at all.

Such a course will give less work to the undertaker, dentist and doctor.

CLINICAL OBSERATIONS ON VAGINAL TOTAL EXTIRPATION OF THE UTERUS FOR CANCER.

Abstract of a paper read at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY CHAS. A. L. REED, M.D.,
OF CINCINNATI, O.

In presenting this paper I desire to avoid all controversial questions as to the justifiability of vaginal extirpation of the uterus for cancer, but I shall proceed upon the presumption that, by a consensus of advanced professional opinion, it is looked upon as a fixed operation in surgical practice. It shall be my future purpose to discuss some clinical features of the cases requiring this operation, and to call attention to some features of technique.

My observations are based upon an experience

in eleven cases—nine recoveries and two deaths—but one of which can justly be called primary. The first case was operated upon Nov. 27, 1887, the last, April 28, 1890. There has been recurrence but in two cases; one that of a woman 48, who was operated upon Jan. 11, 1888, after sixteen months' previous duration of the disease, had recurrence after twenty months; the other, that of a woman aged 40, who was operated upon only six weeks ago, after six and a half months' previous duration of the disease, and in whom lateral infiltration of the broad ligaments was discovered only after the operation was begun. This case can not be justly called one of recurrence but an incomplete removal of the disease.

It has been my experience that one of the chief difficulties encountered in the successful management of these cases is the failure to get them for operation early. All of my cases have been above 32 years of age, and in nearly all of them I have discovered that delay in consulting a physician has occurred in consequence of the belief of the patient that her "irregularity of menstruation" as she generally calls it, implies only "change of life." When she finally consults a physician and is informed of the nature of the disease, she repels the suggestion with the remark that it can't be true because she has never suffered pain; and in many instances the physician himself is disconcerted by the observation. The idea that pain is an essential symptom of cancer of the uterus is promulgated in many of our text books and is firmly rooted in the general profession. The result is that in the absence of any complaint of pain medical men are often induced to indulge in fatal delay before making the examination which is necessary to establish the diagnosis. These cases, when examined are generally so easily made out, particularly when the aid of the microscope is invoked, that failure to diagnose them in time for successful operation can hardly occur.

The attainment of the highest success with this operation must come from early interference, a mastery of refined technique, and careful attention to the details of after treatment. A moment's thought can with propriety be given to the question of early operation. It is unnecessary to dwell at length upon the imperative importance of interference before the peri-uterine structures become involved, for I believe all operators recognize the fatality of the operation after the disease has passed beyond the limits of the uterine tissues proper. There is another consideration, however, which is not generally taken into account, viz., the induced anæmia. This state of the blood occurs from two causes, viz.: 1. Direct drain by uterine hæmorrhage, and (2) interference with the blood making function through inhibited vaso-motor activity, the result of a persistently depressed mental state. But from whatever causes induced, the depleted state of the circulation puts the patient in the worst possible condition to spare the comparatively small amount of blood lost and reduces her nervous resistance to such a point as to make her an easy prey to shock. One of my fatal cases died from shock within three hours after a short and almost bloodless extirpation, and I am forced to conclude from a not very extensive research that the majority of all cases that die under the perfected operation succumb, not to hæmorrhage, as was true but a few years ago, but to shock.

The preparatory treatment to which I subject my patients is designed chiefly to overcome this very condition. I endeavor to arrest the waste by the use of the vinegar douche or the vinegar tampon, and sometimes by curretting to the extent of removing the bleeding soft tissue. I at the same time keep the bowels gently open, and force the diet. This course persisted in for from a few days to a week or two places my patient in a reasonably good condition for the operation.

The operation itself requires but few instruments. The one that I particularly value is the Jones' speculum, a self-retaining perineal retractor, which enables one to operate with the patient in the much desired lithotomy position. A strong vulsellum forcep, a pair of pointed scissors slighly curved on the flat, and four ordinary Wells' large forceps complete the essential outfit. I also have at hand some silk and a pair of Hagedorn needles.

The best anæsthetic in these cases is chloroform, which is less likely than ether to cause vomiting and consequent extrusion of omentum and bowel.

The patient is now placed in the lithotomy position, the perineal retractor inserted, and the vagina carefully washed out with a 1 to 1,000 bichloride solution. The cervix is now seized with the vulsella and drawn well down, care being taken to note the vesical margin. With the scissors a dissection is rapidly made around the cervix, but only through the mucous membrane. This dissection is then carried into the peritoneal cavity anteriorly the tissues being generally separated by the finger. If the peritoneum persists in receding from the tip of the finger, as often happens, that membrane can be opened by a thrust of a pair of closed forceps. A similar dissection is then made posteriorly. These two dissections are now carried by the fingers to near the broad ligaments on either side. With the finger of my left hand introduced into the posterior incision and hooked over the right broad ligament that structure is drawn and clamped. I now release the uterus by dissection with the scissors on the right side, and draw it out of the vulva. The clamping of the left side is now a matter of convenience. If the appendages are within easy reach I bring them, too; if not, I leave them.

Many surgeons think it necessary to close the aperture but I think no one now endeavors to do so by sutures. In some cases in which I have feared protrusion of the bowel I have taken a small hæmostatic forcep and lifted up the posterior flap against the anterior raw surface and have packed it with antiseptic gauze. The dressing should, of course, be removed at the end of twelve hours, by which time agglutination will generally have taken place. I have consumed forty minutes in the operation and I have done it in eighteen minutes.

THE SCIENTIFIC ASPECTS OF MEDICAL HYPNOTISM, OR TREATMENT BY SUGGESTION.

Read before the Chicago Medico-Legal Society, October 4, 1890.

BY M. H. LACKERSTEEN, M.D., M.R.C.P., Etc.,
PROFESSOR OF MEDICAL PHYSICS AND ELECTRO-THERAPEUTICS; CHICAGO POST-GRADUATE SCHOOL OF MEDICINE.

(*Concluded from page 708.*)

I wish now to say a few words from my own knowledge of the subject. My experience, has been very limited in regard to hypnotic therapeutics, and it is only as a therapeutic measure that I have any knowledge of hypnotism at all.

Some thirty years ago, about the termination of the Sepoy mutiny in India, I visited the mesmeric hospital which had been established in Calcutta, by Dr. Esdaile, many years before my time, and witnessed a capital operation on a native who had been put into the mesmeric trance. On the following week I repeated my visit with the surgeon in charge of the hospital, and by his kindness and courtesy, I had the opportunity of performing two operations, an amputation of the thigh, and the removal of a scrotal tumor, which was found to weigh a little above fifty pounds. Both these operations were done under mesmerism. There were four other operations put down for that day, but the mesmerizer had not been able to mesmerize the subjects. One I remember was a fracture of the upper jaw, and another was a cancer of the breast; the other two I forget now what they were. These cases I was told would be operated under chloroform. When I revisited Calcutta after ten or twelve years of service in the N. W. provinces, I learned that the mesmeric hospital had been abolished, because of the uncertainty of producing anæsthesia in all cases by mesmerism.

Dr. W. B. Carpenter who had made a study of the mesmeric condition, and had also studied Braid's cases of hypnotism, had announced at this time his "expectant attention" theory, in explanation of these phenomena, "the dominant idea" as he put it "influencing and governing all other mental operations." Liebault had now commenced his treatment by suggestion in France, and an occasional notice of his doings appeared in some of the French medical journals. In the meantime the requirements of the service had thrown me right into the midst of a very densely populated part of upper India. I enjoyed the fullest opportunity here of acquiring a considerable knowledge not only of the Eastern languages, but also of the methods of practice prevalent among the native Indian doctors. From my knowledge and standpoint of therapeutics it was puzzling at first to understand how these men attained results in their practice, that were very little if at all inferior to my own, seeing that their remedies for the most part were the crudest rubbish imaginable. The fact was that the self limited diseases and functional disturbances which formed perhaps sixty per cent. of all cases, came round all right through the agency of that mysterious "*vis medicatrix naturæ*," a *vis* that was no more explicable and intelligible than hypnotism itself. The efficacy of this *vis* became still more convincing when the cures were effected by charms, amulets, and incantations without the exhibition of any drugs whatever. Truly nothing is impossible to those who believe. When the *vis* is helped by suggestion, similar and even more remarkable cures may be expected among educated and intelligent patients. Look for instance at the work going on at the present day before our very eyes. New schemes and devices are adopted by ignorant, but by no means necessarily dishonest healers of disease, who practice suggestive hypnotism without knowing it to be such, but who ascribe the good results which may happen to follow their ministrations, to the help of God obtained specially through their prayer and favored mediation. Is it not the same thing with the high potency practitioners? Surely no one with common sense, and in his proper senses, can really be persuaded to accept it as a sober fact that the weaker you make a remedy, the stronger will be the effects; and yet a great many educated persons follow this method of treatment. As a matter of fact therefore more than half of these sick folks, whether in India, Egypt or Chicago, get well under a treatment that is chiefly applied directly to the mind rather than the body, and which indirectly influences and modifies the diseased condition itself through the mind, not forgetting of course the *vis naturæ*.

The physician in his practice deals with his case objectively, and the patient has to realize his symptoms, feelings, and impressions subjectively. The latter experiences his malaise and distressed feelings, and proceeds to the physician to have them removed. The educated scientific physician makes his physical and clinical examination; for as a man of learning and sense, he has first to make a careful diagnosis, that is ascertain exactly what is the matter, before he can decide upon what ought to be done. In a great many cases,

unfortunately, such decisions, are of a very impotent character, for to know what ought to be done, and to be able to do it, are two very different things. Two physicians may agree both as to the nature of the disease and the indication of treatment, and yet they are very liable to differ as to the particular means and remedies to be employed that would best meet the requirements of the case. The knowledge of disease derived from a study of symptoms, and with the interpretation of symptoms, *i.e.*, a rational knowledge of the diseased condition is the *science* of medicine; but the treatment of disease is not a science at all, but an *art*. A great deal in this line evidently depends on the personal equation. The more practiced, the more perfect; the greater the experience, the greater the skill—these are axioms of art, all art, every art. The best and most successful physician, therefore, is he who combines the learning from science and the wisdom from experience. His learning explains and interprets his case, and his wisdom suggests its treatment. Now as to the patient, he is guided entirely by his feelings. He never goes near the Doctor unless he "feels bad"—pains, aches, pyrexia, nausea, insomnia, anorexia, etc. If the patient's distressing feelings were relieved, he would cease to *feel bad*, though he may not be cured; and hypnotism or hypnotic suggestion can inhibit all these subjective disagreeables at once.

Perhaps the most masterful diagnostician of the past generation, and a thorough master of the natural history of disease was Sir William Withey Gull. He was a marvel among Londoners as a successful physician, and yet not a physician of my acquaintance was less able to write a respectable prescription, or could get along better with fewer remedies in his practical working pharmacopœia. His immense practice necessitated the appointment of two lieutenants who took charge of the more important personages among his wealthy patrons, after a careful diagnosis and prognosis had been made. The treatment under which the remarkable recoveries took place were mint water, syrup of ginger, and such like remedies *with strict attention to diet and hygienic management*. The assurance of the big man that the disease would terminate in such a manner and within such time under the proper and judicious treatment of my friend Dr. A. or Dr. B., (his lieutenants) created a mental impression of perfect security. From that moment everything went well, and in due course of time the patient was convalescent. Implicit trust in the physician is the basis of the psychic treatment, and works half the cure in most functional diseases.

Now, can we possibly get along in this world without accepting a thousand and one things on trust? That shrewd, far-seeing writer, De Tocqueville, in his famous work on America puts this idea in the following impressive sentence: "There never was a philosopher, however great, but believed in a million things on the faith of others, and accepted a great many more facts than he had verified." The mere suggestion, therefore, of a trusted physician acts like hypnotism to the simple minded, trusting patient, and he automatically obeys all that is enjoined, and realizes what is expected of him. Very susceptible patients are impressed in their waking moments, but light hypnosis or somnolence is the most convenient and suitable state for the generality of patients. Rarely is it necessary to induce the hypotaxic condition, and as to hypnotic somnambulism, I have never seen a case.

The cases in which I have found suggestion to act most satisfactorily, requiring but one or two sittings, are those in which menstrual irregularities constitute the most prominent features. I shall state one or two cases. A. B., 35 years old, married, mother of one child, had never been regular during the twenty years she had menstruated. The intervals were two weeks, six weeks, two, three or four months. She had last menstruated on June 3, 1889, when she saw me professionally on the 14th. I placed a piece of solid aluminium in her hands and requested her to look at it steadily. "Now I am going to put you to sleep and impress your nervous system, so that when you wake up you will be perfectly cured." Her imagination was taken by surprise, and before she realized her situation, I told her she was already looking sleepy, the eyelids were growing heavy and sleepiness would soon overtake her. "Yield to the influence, close your eyes, sleep," and in just one minute she was hypnotized. "Now pay attention to what I say On the 1st of July you will be unwell at midnight, and on the 2d of July you will come to my office to tell me this, and every month on the night of the 28th or morning of the 29th day, you will regularly menstruate without fail. Do you hear what I say?" "I do." "Repeat it." She repeats. "Realize it." She is silent. "Do you realize it?" "I do." "You will feel no trouble or discomfort when you awake. "Do you realize it?" "I do." "You will remember nothing when you awake." "Awake." On July 2 this American lady of education and intelligence was seated in my office awaiting my arrival. "What is it?" I ask. "Well, I came to tell you, doctor, that I have come round all right just to the month, the very first time in my life." "It is a funny thing that you should come to tell me this. If you are all right, you don't want to see a doctor. Why have you come to tell me this?" Well, she was so well pleased with what had happened that—that — She fumbled about somewhat embarrassed, asked me to excuse her, and left. I called her back. "Should you become irregular again, don't fail to come and tell me." She has been regular ever since. Eight other cases, almost

similar, were hypnotized more than once, but all with the same result.

C. D., unmarried, of American descent, anæmic, suffers from amenorrhœa, called with her mother on June 20, 1889. She suffered from severe pelvic pains for four months after receiving a chill, and has had very indifferent health ever since; has taken Warner's chalybeate pills three times a day for three months without improvement. With her sanction and her mother's permission she was hypnotized in six minutes, and told that she would menstruate in six days. On the 27th of June she menstruated, but she skipped the month of July and was again brought to me on the 4th of August. She was hypnotized in three minutes, and was requested to report on the 23d of August that the time had come on the day before, and she was assured that every twenty-eight or twenty-nine days thereafter she would menstruate regularly. She appeared on the 23d of August to say that she had been unwell the night before. She has been regular ever since.

Gastric troubles are very amenable to hypnotic treatment in conjunction with such remedies as neutralize the excess of acid in the secretions, or a little local electricity, and careful attention to diet; suggestion under hypnosis being well calculated to affect the subjective phenomena of the underlying neuroses, whether structural or functional, ataxic or neurasthenic.

As the dyspeptic cases were at the same time under dietetic or hygienic treatment, and as careful observance of regimen alone is calculated to produce good results in these diseases without the aid of hypnotism, I avoid entering into any particulars regarding them; but I shall mention in passing that under hypnotic suggestion the feelings of distress, pain and nausea were promptly relieved, and the sufferers made comfortable at once.

I have had three cases of dipsomania, two of which have been treated successfully so far, and one was a failure. This failure, however, was due to the fact that the patient was intoxicated during the treatment, and I am of opinion that he was not capable at the time of either fixing his attention or of receiving any suggestion.

A few cases of constipation, neuralgia, and rheumatic pains have made decided improvement under suggestive treatment.

Two or three cases of sexual impotency were very successfully treated by hypnotic suggestion. One in particular was not only remarkable but quite unique, even in the records of hypnotism. Suffice it to say that I have had an experience of nearly fifty cases, and that I have been more or less successful with them all. There is now, therefore, not the least doubt in my own mind that of all the means employed to cure disease through the effects of the imagination,[1] hypnotism is by far the most powerful. Hypnotism is an established fact; but the question as to how far it is useful in therapeutics can be answered satisfactorily only after a great deal of investigation. The attitude of the profession towards the employment of this resource is not very creditable to medicine as a progressive science. Dr. August Voisin, physician to the Salpêtrière, discussed the treatment of neuroses by hypnotic suggestion at the last August meeting of the British Medical Association. He concurred with Braid that the hypnotic state originated in the nervous system of the hypnotized person; he also stated that hypnotism was in his experience useful when it was possible to make use only of suggestion. He then enumerated a number of cases of hallucinations, delusions, disturbances of special and general sensation, suicidal ideas, acute and furious mania, dipsomania and morphinomania, obstinate cases of onanism, etc., which had been treated by him and cured under hypnotic suggestion, and concluded by describing how he had completely transformed the depraved habits of thought in the young, and had brought them to love the good, whereas they had formerly loved the evil.

In the discussion which followed an objector declared that his attitude of mind towards the paper was simply one of amazement. There was something, he said, that cured mania, banished hallucinations, cured love of drink and morphia, stopped masturbation, improved the memory, made imbeciles wise, and bad folks good; moreover, it cured amenorrhœa, and the patient menstruated as directed. It resembled nothing so much as the waving of a conjuror's wand, and saying to the disease, "Begone." Moreover, in nine-tenths of the cases the cure was permanent. If all this were true, their vocation was gone, and they must seek some other profession. Dr. Voisin must not deem the English objectors as disrespectful if they were a little incredulous as to these wonderful results. It might be there was something in the vivid Gallic nature that the English did not possess, or something in Dr. Voisin's method that the English did not know, and more to the same effect, entirely discrediting Voisin's narrative of facts, and denouncing him as a fraud because the objector did not see how these things could possibly be; or to put it in the most charitable light he believed Voisin was a self-deluded enthusiast, and although sincere was entirely mistaken in reporting a pack of delusions as facts. Now is this the scientific method? Is this the way to establish the truth as to any natural phenomenon? Why this rooted disinclination

[1] "It is not pretended "that suggestion acts directly upon the diseased organ to suppress vascular congestion, resolve inflammatory exudation, and restore the destroyed elements of the parenchyma. What drug in the materia medica is capable of creating such a direct curative activity? Diseases are cured, when they can be cured, by their natural biological evolution. . . . The therapeutic agents which we use are only functional medicaments—suggestion, also, is a powerful functional medicament."—Beaunis.

to accept the facts of hypnotism? And why should the knowledge of these truths excite amazement? Simply because they are new and unfamiliar? Partly, but chiefly because charlatans and quacks who have misused them for purposes of gain have surrounded them with supernatural claims which science cannot recognize. These are ridiculous objections. New things, and new ways of doing old things we find every day in these active times full of discoveries of new facts in nature, and inventions in art, but when these facts become familiar, and when these inventions are known and understood, they cease to excite amazement. That a new way in practice may alter in some manner our time-honored vocation is quite possible; but is it reasonable to oppose the recognition of a fact simply because it is likely to occasion inconvenience to us in our routine habits of business, or disturb our traditional views and opinions? "I don't like it," or "I don't believe in it," and "I won't have it," will scarcely produce an impression on the phenomena of nature. Not a single fact can be altered or modified by either belief or disbelief. The facts will continue to be facts just the same. The question simply is, "*Is* it a fact?" To denounce the statement of a fact without investigation and inquiry simply because one dislikes it, is the same kind of thing as to condemn a man to death without a trial simply because you hate him. Such a proceeding would in the first instance be unscientific, in the second unjust, to say the least. If you have an ardent love for the truth, you have plenty of means of searching for it; but first investigate before you opinionate. If you don't know, either keep silent or try and learn.

It is not so very long ago that a large section of the community were struck with amazement at two persons being able to converse one hundred miles apart, their voices being made to travel to and fro along a wire. "Why, how could such a thing be?" they asked. There is no amazement now, for every one knows the fact; though even to-day not one person in a hundred thousand can explain it understandingly to himself excepting as a something that is produced somehow by electricity. If anyone would like to understand how the "halloing" is done in a telephone, he must first study the laws of electricity, and next learn the principles on which the telephone is constructed; but he can easily satisfy himself that it can be done by going to a telephone and trying it himself. The same process is applicable to hypnotism and to every other fact. Learn the fact of hypnotism by seeing it, then try it yourself. If you want to know more, study the works of the physiologists and psychologists who have devoted their best talents to its explanation. And if you are still more curiously disposed and possess the necessary qualifications, go ahead and add as much to our information and interpretation of hypnotic phenomena as you can, by making original investigations; for the field is wide enough to occupy many generations of inquirers without the least fear of exhausting the subject.

Hypnotism is a fact which is sure to be more generally appreciated the better it is known and understood, and the earnestness and ability with which it has been prosecuted give fair promise of rich results in the future. It will render great service to the *Physiologist*, perhaps, by clearing up our knowledge of the mechanism of reflex action, and inhibitory action, the extent of associated sensory and motor functioning, the influence of vaso-motor stimulation on secretion and excretion, the association of spinal with cerebral impulses, the character of automatic action, of unconscious cerebration, and a thousand other facts now more or less mysterious and unintelligible. It will render great service to the *Therapeutist* by indicating the true physiological action of drugs, and removing the associated influence of subjective phenomena as a modifying agent in the production of therapeutical effects. It will be of considerable interest to the *Pathologist* by enabling him to appreciate the changes producible in the fecundity and alterability of microörganisms by altering the character of their pabulum, an alteration which might possibly be effected through the vaso-motor system influencing nutrition. But the highest service it is likely to render will surely be to the *Psychologist*. The so-called philosopher of olden times had for many thousand years tried, and tried in vain, to study the functions of the brain by an introspective examination of his own mind. Metaphysics as a science have long ago been pronounced impossible. By hypnotic suggestion the psychologist of the future will in one single year learn more of the mind and the mechanism of its so-called faculties than the highest talent of the world had been able to ascertain in two thousand years. It is believed that it may help towards the objective study of consciousness itself, to the forming of a clear notion of mental diseases, and to the employment of a more effective method of treating the insane.

It will be noticed from all that I have said, that by hypnotism I understand the influence of suggestion on the willing and susceptible mind, whether this suggestion be offered under the names and processes of mesmerism, electrobiology, animal magnetism, or produced by hypnotism by the method of Braid. It is not even necessary that the sleeping illusion should be induced in order to evolve phenomena under suggestion. Hypnotism is therefore a great power, and is consequently capable of being abused. The forensic aspect of hypnotism where any amount of crime may be perpetrated through the agency of helpless and irresponsible victims is much too ex-

tensive and important a subject and can receive no more than just a passing mention in this sketchy paper. There are some erroneous and exaggerated notions, however, entertained regarding this danger. The fact is that no one *can* be hypnotized against his will, and a firm determination to oppose the influence of suggestion is the best safeguard against all susceptibility to hypnosis. Weak minded people under religious emotions can, however, be wrecked and ruined without warning by insane enthusiasts who capture the attention, and play upon the feelings of ardent devotees at religious revivals. These meetings should be prohibited by stringent legislation;[1] and however valuable hypnotism may be to the psychological and scientific physician, in the hands of the ignorant and sensational exhibitor, it is calculated to do nothing but harm and mischief.

One word more and I am through. Will hypnotism ever become popular in general practice? I think not. It will always remain in the hands of specialists, and it is right that it should. A special training is necessary to make it impossible for the hypnotizer to do the least amount of harm in any case brought to him for treatment. It takes too much time to make it popular among busy and active practitioners; and it will always be felt as a serious inconvenience by patients to put themselves into the proper frame of mind, and then allow themselves to be sent to sleep in order to receive treatment for common ailments. Further, any unconscious resistance on their part will operate as an auto-suggestion against the suggestion of the operator, and in this way either prolong the sittings indefinitely before the sleep illusion is induced, or render the induction of the hypnotic state altogether impossible. It has its uses and its drawbacks; but in suitable cases and in proper hands I consider it a valuable therapeutic agent.

I feel that I have done scant justice to this important and highly interesting subject, and I am much obliged to you, gentlemen, for the patience and attention with which you have listened to this meagre outline.

(For discussion see Society Proceedings.)

DIPLOMAS IN COLORADO.—The Colorado State Board of Health, after July 1, 1893, will not accept the diplomas of any school which does not have an obligatory three years' course of instruction of five months each, in three different years.

[1] The brutal practice of shocking and jarring hystero-epileptics by sudden flashes of lime-light, and the striking of gongs, should also be stopped by legislation. This kind of thing can hardly be called "therapeutical." Imagine an inhuman experimenter exhibiting toxic doses of strychnine to a case of traumatic tetanus, and making a public show of the contortions and agonies of the wretched sufferer. In both these cases we should have valuable remedies misapplied and prostituted for sensational purposes regardless of the misery inflicted on the unfortunate victims. From these cases no man of *sense* would form his opinion of the proper uses of hypnotism and strychnine.

REMOVAL OF TONSILLAR HYPERTROPHY BY ELECTRO-CAUTERY DISSECTION.

Read before the Chicago Medical Society, October 6, 1890.

BY EDWIN PYNCHON, M.D.,

INSTRUCTOR IN RHINOLOGY AND LARYNGOLOGY IN THE CHICAGO POST-GRADUATE MEDICAL SCHOOL, AND LECTURER ON DISEASES OF THE NOSE AND THROAT AND THEIR RELATIONSHIP TO THE TEETH AT THE U. S. DENTAL COLLEGE OF CHICAGO.

The anatomy and physiology of the tonsil I will not attempt in this paper to consider except with brevity. As to size, in the thoroughly normal condition, its presence is hardly perceptible. As usually described in treatises on anatomy it would appear that a moderate degree of hypertrophy has been accepted as the type of perfection. As far back as medical history goes allusions are to be met with concerning the enlarged tonsil, and the means adopted in the attempt at its removal.

The physiology of the tonsil is not thoroughly understood. It has been supposed to be of assistance in lubricating and guiding the bolus of food being swallowed. In civilized life it seems to be devoid of practical use and appears to be but rudimentary, and as a reminder of a something which in prehistoric days may have been required, when man lived on fruits and nuts, and barks of trees, before the art of cooking was discovered. One trite observer has remarked that "the principal use of the tonsil was to absorb poisons." While, in common with trite remarks generally, this one may possess the feature of exaggeration, still I believe it in the main to be worthy of attention. For example, but note the effect, in cases of diphtheria, when the tonsils are prominent, and the increased severity and fatality therefrom. Enlarged tonsils seem most often to result from exposure and debilitating influences, and from surroundings of unfavorable hygienic condition.

The object of this paper is to call attention to a condition of hypertrophy of the faucial tonsils with which I frequently meet both in clinical and private practice. I do not allude to the usual and well recognized enlarged tonsil of the hyperplastic variety which is so frequently seen, particularly in children, which is resistant to the touch and which, owing to its large size, occludes the faucial passage and materially interferes with both respiration and drainage. Such enlarged tonsils are, I believe, always removed by the educated physician, providing the consent of those closely related can be obtained, and the necessity for the removal of which has been generally conceded by the medical profession. On the contrary, I allude to a condition of the gland wherein it is hypertrophied, and therefore diseased, though the enlargement may be but slight; a condition wherein the hypertrophy is more of the follicles than of the gland, and wherein the tissue, while

nodular, is yielding to the touch. According to Sajous, "the increased volume of the hypertrophied tonsil may be hardly noticeable" (p. 287). By the ordinary examination with the use of the tongue depressor it may be difficult to see and, in fact, may even escape the attention of the observer, though if the tongue depressor be forced sufficiently far back, even to the touching of the epiglottis if necessary, the patient can be made to gag, when, by the contraction of the constrictors pharyngeus, these diseased tonsils will be thrown out from between the pillars, and in aggravated cases may be made to meet. When so examined the lacunæ will be observed to be large, and by slight pressure upon the bodies there will be seen to exude from these openings a cheesy secretion which is not only profuse, but is oftimes of a disagreeable odor, and consists of cholesterin, débris from broken down follicular glands, epithelium, pus corpuscles and other waste matter. When profuse, I believe there is always a tendency towards decomposition. I have observed this secretion to be much more profuse and disagreeable in case of the small hypertrophied tonsil described in this paper than in case of the very much enlarged tonsil. When such condition of the tonsil exists as I am describing, there will be found associated therewith other conditions, some or all of which may at times be present. The saliva in the back part of the mouth is more profuse and frothy than in a normal throat. There is generally present a condition of chronic pharyngitis, and there is frequently given a history of previous attacks of quinsy, and the patient acknowledges himself to be the possessor of a throat abnormally sensitive, which is easily affected by exposure during inclement weather. Unless the patient has been accustomed to pharyngeal and laryngeal manipulations or to the use of gargles or post-nasal sprays, the fauces will be found to be more sensitive than normal, so much so that the induction of gagging previously alluded to will, in fact, be too easily attained, and in many cases, at first, the mere pointing of the tongue depressor at the opened mouth causing nausea. There will generally be given a history of post-nasal catarrh with its usual train of symptoms, including at times a diminution in acuteness of hearing. There will often be observed the coated tongue and tainted breath associated with other symptoms of indigestion. In fact, since I have had my attention particularly drawn to the described diseased condition of the tonsil, I have not seen a patient so affected whose tongue was not somewhat coated and who did not give some indication of dyspepsia. I believe that in the swallowing of catarrhal and diseased tonsillar secretions we have a frequent cause of chronic gastric catarrh.

If the patient is one who sings or who is accustomed to prolonged use of the voice as, for example, a clergyman, a lawyer or an auctioneer, by inquiry it will be learned that after vocal exertion there comes a condition of huskiness of the voice or even pronounced hoarseness. If the patient be a vocalist and the diseased tonsils be not extremely small, it will be elicited that in the execution of the notes of high register there is a consciousness of greater muscular exertion and strain being required than would seem to be natural.

There is frequently given a history of cough with expectoration, particularly in the morning, of thick mucus from the larynx, often in the form of a small, hard globule which is of bad smell when compressed. There is generally a sensation of roughness of the throat which is in part attributable to the concomitant pharyngitis.

This condition of the tonsils has been by some medical gentlemen appreciated, and means have from time to time been employed for their eradication. Owing to their small size and the difficulty or impossibility of grasping them, the usual operation of tonsillotomy is not available. The process of igni-puncture has been suggested and is practiced by many, which operation consists of entering into the several lacunæ one after the other, and generally not more than three or four at one séance, a cold platinum cautery point and then, after heating the same, cause it to burn its way out. This process is repeated until all of the large follicles have been destroyed, the expectation being that after such partial cauterization as described the remainder of the gland will pass away by absorption. The results have been claimed to be satisfactory, though generally a very ragged and bad appearing surface remains.

From my own experience with this operation and from my observation of the experience of others, I am convinced that generally the expectation is not realized. In the case of young children, after a partial tonsillotomy the remainder of the gland is often found to absorb, but in the condition which I have in mind, and which from its nature is most often found in adults, there is a denseness of the tissue which precludes the expectation of even partial absorption. I frequently meet with cases in patients 30, 40 and even 50 years of age. While the tendency in the adult is towards the absorption of hypertrophied tonsillar tissue, I do not believe that such absorption is often complete. On theoretical grounds the further objection to electro-puncture can be made that, while the larger and more prominent follicles are destroyed, there yet remain many smaller follicles which in time may become large, and which even prior to such enlargement are constantly giving forth a secretion which cannot be otherwise than the gland itself, to wit: diseased. Another patent objection is that the ragged surface remaining is a necessary source of irritation by the arresting of particles of food being swal-

lowed, and is furthermore, owing to its roughness, an unfavorable surface for the best production of vocalized sounds.

Another means of eradicating small diseased tonsils is to grasp them with some form of vulsellum forceps, encircle them with a galvano-cautery snare and thus attempt their removal. While such operation may in certain cases prove more satisfactory than the former operation, it is nevertheless not a thorough success. Owing to the elongated and flattened shape of the diseased tissue the difficulties met with are apparent, and while a portion thereof may be so removed, we are justified in assuming, as before, that the leaving undisturbed of a considerable portion of the abnormal tissue is contraindicated. Another of the physical objections to this mode of procedure is that in certain cases, owing to previous follicular inflammations with resulting suppurations, the projecting surface of the gland is not a favorable tissue for being so grasped as, while the base may be indurated, the surface is soft and easily torn. Another method which has been employed is the dissecting out of the offending tonsil by means of blunt-pointed and curved bistouries. While this method would seem to promise efficiency if prosecuted to a sufficient degree, it is, for obvious reasons, very seldom adopted.

Practitioners generally, even when they have recognized this condition described, have not been disposed to associate therewith the several symptoms which I have enumerated, and too often, realizing the obstacles to be met with in the removal of a gland so well imbedded and carefully surrounded, have preferred to prescribe placebo gargles or astringent applications which can only allay temporary irritation and never produce radical cure. In this condition, when the throat is in a passive state, I generally find the tonsil about flush with the pillars and often quite thoroughly adherent thereto both anteriorly and posteriorly and, furthermore, not infrequently associated with a condition of hypertrophy and infiltration of the pillars. The presence of such condition may in a pronounced case detract two or more cubic inches from the space of the mouth, which can be readily believed to have a material influence upon the voice. Furthermore, during vocalization the pillars, which are normally parallel and should so remain, are held apart at their middles by the presence of an indurated and unyielding mass which additionally fills a space which in the natural condition is an inverted trough, rendering undoubted help in the formation of certain of the voice sounds.

Believing that in such cases the indication is to thoroughly and completely remove the diseased tissue, and finding that the ways and methods heretofore known and as described were inefficient, after some thought and experiment I devised a method of securing the desired result with safety and efficiency, and have since put it in practice on many occasions. It will afford me pleasure to describe this operation in detail, so that any of my *confrères* who may so elect can practice the same.

With the patient possessing a hypersensitive throat I first prescribe a course of treatment to reduce the sensitiveness thereof, which consists in the half-hourly employment of a gargle of potassium chloras accompanied by the frequent introduction into the mouth of the handle of a teaspoon, which is to be used alternately as a tongue depressor and as a soft palate elevator. In this way, generally in two weeks or so the quite sensitive throat becomes tolerant to the presence of instruments. At an appointed time I apply a solution of cocaine 10 per cent. with phenol 5 per cent., which produces some anæsthetic effect, and by its bitterness tends to detract the patient's attention from the pain incidental to the operation. I employ three electrode points, two being bent at right angles to the shaft, so that by reversing the electrode I can have a point bent either above, below, to the right or to the left as I may require. The third electrode point is very slightly curved and is likewise reversible. They are all made of No. 24 guage platinum wire and will heat quickly. I use a current about 50 per cent. stronger than is required to produce a white heat of the electrode in the open air, so the most brief pressure on the contact button will thoroughly heat the point, and if left in contact for more than two seconds of time *in the open air* would probably produce fusion thereof. Such a point and current as described will, in use in the tissue, give the least pain with the best and most rapid results. During the operation the tongue depressor must be employed, and it occupies the patient's mind to have that instrument in charge. My first step is to dissect the tonsil away from its attachments to the pillars, generally entering the appropriate point cold, heating and burning out. For the upper portion of the pillars I use the point bent downwards and work in that direction. For the lower portion of the pillars I sometimes reverse the same point and work upwards. The point being entered cold and serving as a blunt tenaculum, the tonsil is lifted out and towards the median line, when the point is heated and burns its way out. Only a little is done at a time. The side attachments having been released, I next grasp the tonsil near its upper end with a suitable forceps, lift the same forward, and with the heated bent point dissect the tonsil little by little from its attachment below to the pharyngeal aponeurosis. The operation is of course somewhat tedious, and requires from fifteen minutes to possibly one hour's time. From five to twenty seconds' work is done at each attack, the remainder of the minute being lost by the patient resting. Unless the patient is restless, so that the electrode is caused to tear instead of

burn through the tissue, there is little or no hæmorrhage. I have in some cases lost less than twenty drops of blood, and in no case has the hæmorrhage probably exceeded one ounce. The most difficult part of the operation is in getting the upper end of the tonsil loosened. It is then very easy until the lower end is reached, by which time the loosened portion drops over on to the tongue, producing nausea. The principal points in the operation consist, firstly, in never operating while there is present a condition of acute inflammation; secondly, in constantly lifting the tonsil forward towards the median line while working; and lastly, in working slowly and doing but little at each stroke with a thoroughly heated point, which will always burn its way through the band of tissue engaged. I have also with satisfaction done this operation as described, for the removal of the indurated base of a tonsil remaining after a tonsillotomy. Immediately after the operation I have latterly been making a thorough application of "Eisen-glycerine" (a German preparation much used in Vienna, and consisting of equal parts of tinct. ferri chlor. and glycerine), and have found it to be efficient in tending to prevent as marked inflammatory reaction as frequently occurred prior to my adopting its use. I repeat this application daily for the first week, providing the patient calls at the office.

Succeeding the operation for a few days the throat is quite sore, which condition I combat by directing the frequent use as a gargle of a saturated solution of the bicarbonate of sodium, and for the first two or three nights the employment of the wet pack about the neck. If in twenty-four hours after the operation the inflammation has become quite pronounced and annoying, I prescribe a mixture composed of tr. of iron and chlorate of potash in glycerine—one dose containing from 6 to 12 minims of the iron and about 4 grs. of the potash, every two hours, and have in some cases prescribed this at the start as a prophylactic with apparent benefit; and I might remark here incidentally that this mixture also has a beneficial influence upon the gastric catarrh, clearing the tongue and improving the appetite.

After the first few days, in place of the gargle of soda I substitute a saturated solution of potassium chloras, and have in some cases, where this was disagreeable to the patient, given instead a gargle of diluted tinct. of myrrh of the strength of about ½ drachm of the tincture to the ounce of water. The amount of annoyance produced by the operation differs in different cases, being influenced in a measure by the size of the remaining wound, though to my mind it is more dependent upon the idiosyncrasy of the patient. In the several cases in which I have performed this operation I have not had reported any marked febrile disturbance, though in several cases the local inflammation has been considerable.

At a given séance but one tonsil should be removed, and generally about two weeks should intervene between operations. In a few cases, owing to the restlessness of the patient, the tonsil being operated upon was not completely removed at the first sitting. In such cases the operation was renewed at a later period, after the throat had become thoroughly healed. I have generally found the first operation to be of more annoyance to the patient than have been the one or more succeeding operations. As a result of this operation I have found that the post-nasal catarrh is almost invariably benefited and, also, that when in connection with the post-nasal catarrh there is a slight degree of middle ear deafness, the acuteness of hearing has been intensified. I also find the condition of pharyngitis improved, and in cases wherein there is neither stenosis of the nasal passages nor a condition of atrophic rhinitis, there follows an improvement in the dyspeptic symptoms with a general improvement of the health. In singing the voice is found to have become clearer and more powerful in the high notes, and is not succeeded by hoarseness as before. Furthermore, the possibility of future attacks of tonsillitis is averted.

While the operation is not pleasant to undergo, the general report is that the pain is not so severe as would be expected, and that the most disagreeable feature thereof is the difficulty of combating the tendency to nausea. No patient as yet, after the first operation when both glands were diseased, as is generally the case, has failed to solicit the removal of the remaining tonsil. Between operations after the first tonsil has been removed, the general report is that there is a sensation of more room and comfort on the side which has been operated upon when compared with the opposite side. While to the uninitiated this operation might seem quite heroic, it is certainly not productive of one-half the annoyance and pain that is given in following the treatment by caustics, as chromic acid or London paste, both of which have been employed.

In this or any other operation upon the tonsil, owing to its proximity to the carotids, it is wise to consider the possibility of serious hæmorrhage. The approximate distance from the tonsil to the external carotid is three-fourths of an inch, and to the internal carotid is one-half inch, which distances may be materially increased by traction on the tonsil, owing to the free supply of loose cellular tissue posterior thereto. Bleeding after tonsillotomy is more to be feared from wounding the smaller arteries in that region, particularly the tonsillar or ascending pharyngeal. I personally do not regard the danger from hæmorrhage in the operation described to be anywhere near as great as when the tonsillotome is employed, which from its nature can only be employed when the gland is pronouncedly hypertrophied and projecting.

Furthermore, in the small diseased tonsil described for the treatment of which I advise electro-cautery dissection, owing to its small size the blood supply is not so great as in case of the more hypertrophied tonsil, and the small vessels, when divided by the hot point, are sealed. The operation completed, the wound is protected by a seared surface which it would seem would be far less likely to permit of the entrance or absorption of anything pernicious, than in case of the open wound after tonsillotomy. From four to six days after the operation, as the slough begins to separate, there is a slight secondary hæmorrhage, the amount of which is largely dependent upon the vigor with which gargles have been employed.

In acute parenchymatous tonsillitis, when prompt escape is not given to the imprisoned pus, it is prone to burrow in the adjacent cellular tissue and, when neglected, has produced perforation of a large vessel, followed with profound hæmorrhage. Such a result I do not believe to be possible from the operation which I have described, as the remaining wound is large and open, insuring good drainage and precluding the possibility of such dangerous result. In healing by granulation there occurs a filling up of any small or irregular depressions resulting from the operation, so as to give an even surface, and I have never as yet seen any cicatricial contractions resulting therefrom.

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MEDICAL PROGRESS.

SOME PRACTICAL POINTS IN THE TREATMENT OF SYPHILIS.—DR. R. W. TAYLOR thinks it impossible to over-estimate the great advance made in the treatment of this disease by establishing the fact that small doses given over long periods was more radically curative than the old time heroic dosage, or of the three to six months' courses. He then refers to the advantage of the hypodermic method of administration. The hope of aborting the disease gives rise to two methods, —the first, that of excision of the chancre; and the second, by active mercurial dosage during the primary period of the disease. Both methods have been found useless. He does not begin the mercurial treatment until the beginning of the secondary stage. The three systems of treating syphilis now in vogue are as follows: The expectant, or symptomatic; the continuous, or so-called tonic treatment; and the treatment by interrupted courses. He disapproves both of the expectant and the continuous treatment, and has found that the interrupted but carefully regulated courses of mercury alone at first, and of mercury and iodide of potassium later on, is the one most preferable, most satisfactory and practicable to both physician and patient, and the one by means of which we may almost positively promise a cure to any one with ordinary health who will systematically submit to and follow it up. The systematic treatment of the disease pre-supposes a careful hygiene and an orderly and well-rounded life during its continuance. The preparations of mercury he recommends are the green iodide and the tannate of mercury. He thinks that the bichloride should only be used hypodermically. The dose of the proto-iodide of mercury should be from one-fourth, or one-fifth to one-third, or half a grain. This may be given from three to five times daily. The dose of the tannate of mercury is from one-half to a grain. During the early secondary period is the most important time for giving the remedy, which should be continued from three to six months if necessary. In most cases, at the end of three months, during which the remedy should be taken quite steadily, the patient's condition will be found to be so reassuring that a stoppage of the dose may be allowed for one, two, or even three weeks. The next course may last for but two or three and a half months, when four weeks' freedom may be granted from drug taking. During the second year's treatment, iodide of potassium is combined with mercury. He prefers mercurial inunctions as an adjuvant reserve and emergency resource. The early rashes of syphilis are best treated by mercurial inunctions, both during their active and chronic stages. Thus, if the erythematous syphilide is exceptionally severe and persistent, it is well to leave off internal pill dosage and use mercurial inunctions. When the eruption has disappeared the pills are resumed, and the ointment discontinued. Inunctions should also be made over enlarged lymphatic glands, vessels, and blood-vessels when they are abnormally hyperplastic. A similar treatment is indicated in early papular syphilides. Regional inunctions are also recommended in early and late meningeal, cerebral, and cephalalgic symptoms. In cases of syphilides with much pustulation and encrustation, the common antiseptic remedies are better, for a time, than mercurial inunctions, as they are due to microbian complications. Local nodules, mucous patches, and condylomata should be cleansed and dusted with calomel. For hypodermic use a pure watery solution of the bichloride of mercury is considered the best. Solutions containing one-twelfth and one eighth of a grain dissolved in ten drops of water may be taken as standard doses. These injections will cause the rapid subsidence of specific lymphatic swellings, and of localized and regional eruptions. Cephalalgias may also be so treated. Where mercury taken by the mouth acted as a general depressant, hypodermic injections have relieved the condition. Osseous, bursal, fascial and articular lesions of syphilis, particularly the earlier ones,

are often much benefited by sublimate injections. It is well at the same time to give iodide of potassium in full and increasing doses. Fumigations are often of much use in stubborn localized and even general eruptions, particularly in the chronic scaly stage of early and late eruptions, and also in almost all cases of pustular, ulcerative, and serpiginous syphilides.—*Medical News.*

APPENDICITIS.—At a meeting of the Medico-Chirurgical Society of Montreal, DR. GEORGE ARMSTRONG read a paper upon this subject, dealing especially with the important question as to the time at which an operation should be performed. He urged upon all practitioners to bring forward and publish their cases, both successful and unsuccessful, in order that we might be placed in a position to decide upon an established procedure, and he assumed that on the following points all were agreed: 1. That the cæcum and appendix were entirely surrounded by serous membrane and were intraperitoneal. 2. Primary infiltration of cellular tissue in the right iliac fossa was unknown. 3. There was no evidence of the existence of an infiltration of the walls of the cæcum other than that caused by a catarrhal infiltration or ulceration of its mucous membrane, the most common forms of ulcer being stercoral, typhoid, tubercular, and perhaps syphilitic. 4. The symptoms of a catarrhal infiltration of the mucous membrane of the cæcum were those of a colitis rather than typhilitis, and ulceration of the cæcum did not give rise to symptoms of typhlitis unless the peritoneal covering became involved.

The reader dwelt upon the importance of early recognition of the disease, and upon the fact that every one of the symptoms might be very slight. A little pain on pressure might be the only symptom present to indicate the presence of a pint of stinking pus. A case was cited, that of a girl of 21, in whom the symptoms had been very mild and there had been apparent improvement until the fifth day of the illness, when symptoms of general peritonitis had been observed. Abdominal section had been performed. The appendix had been found to be perforated. The patient had died a few hours afterward.

In a second group of cases the inflamed appendix was completely surrounded by the products of inflammation, so that further changes in the tissue were prevented from contaminating the general peritonæum, at least for a time. In such cases the use of an exploring needle had been recommeded, but the speaker had had little experience of its use. A distended gut could not be pierced with impunity. With regard to medical treatment, the amount of opium used should be the smallest quantity that would insure a fair degree of comfort to the patient, lest the symptoms be masked and the true condition of affairs not be rendered evident to the friends of the patient. Purgatives should be avoided. A mild enema was all that could safely be used. Under such treatment recovery might ensue. It was probable that merely a catarrhal appendicitis had been present. But apparent recovery was no certain indication that the appendix was whole, and in proof of this a case was cited where, after complete recovery, a second peritonitis had occured. Here the abdomen had been opened and a quantity of pus removed, the patient making a complete recovery. In a third case the appendix was removed successfully during the period of quiescence. The paper was brought to a close by an earnest appeal for early operation.—*N. Y. Medical Journal.*

ACUTE ANTERIOR POLIOMYELITIS.—Opportunities for the examination of the spinal cord in recent cases of poliomyelitis are comparatively so infrequent that every advantage should be taken of them when they do arise. DR. R. T. WILLIAMSON, of the Manchester Royal Infirmary, has published (*Medical Chronicle* for September) a detailed account of such a case, where death occurred suddenly five weeks from the commencement of symptoms. The patient was a young man, twenty-two years old, who first complained of numbness in the right hand, the feeling soon extending to the right leg and the left side, and on the third day being followed by complete paralysis of arms and legs. The knee jerks were absent. There was no anæsthesia, and the sphincters were not involved. Rapid muscular atrophy then ensued; but he was commencing to regain some power when death occurred. The lesions found by Dr. Williamson in the spinal cord may be thus summarised: In the lumbar region, a patch of cell infiltation in the outer half of each anterior horn, composed of small round leucocyte bodies and large oval or round nucleated cells. At the periphery of the patch the blood-vessels were greatly distended, and their perivascular sheaths full of round cells. There were no true hæmorrhages. No nerve-cells were visible in the area which corresponded to the region of the antero-lateral, postero-lateral, and central group of ganglion cells. Such cells still existed in the inner part of the cornu, but those bordering on the patch were shrunken and deformed. The network of nerve fibres was destroyed by the infiltration, but in the white matter no degenerate fibres were seen. The contrast between the anterior and posterior nerve root was striking. In the former the fibres were scanty, separated by cells and their myelin broken up into fragments, whilst the latter exhibited very slight changes indeed. The dorsal region of the cord showed only slight cell infiltration and vascular distension in the outer part of the anterior horns, where a few

nerve cells were shrunken. In the cervical region the changes were much as in the lumbar, but less pronounced. The infiltration, however, here extended rather further in a posterior direction; and, moreover, the lesions were slightly more marked in the left than in the right half. In the filum terminale the vessels were dilated in the anterior horns, and a few nerve cells in the outer part had their processes somewhat obscured. In all parts the changes were most marked at the point of entrance of the antero-lateral artery. Microörganisms were sought for, but not found. Some degenerate fibres were found in the trunks of the ulnar and sciatic nerves.—*Lancet.*

EXTRAUTERINE PREGNANCY TWICE IN THE SAME PATIENT.—DR. LEOPOLD MEYER, of Copenhagen (*Annals of Gynecology and Pediatry*, July, 1890), describes a suspected case, under his care. The first operation was performed at about the twentieth week, four weeks after rupture; there was tubo-abdominal pregnancy of the left side, and the left tube and ovary were removed. The patient was discharged cured in January, 1888. She menstruated regularly, but hypogastric pains set in towards the end of summer. On September 6, 1888, the pains came on after hard work; and on the next day, ten days before the period was due, she lost some very dark-coloured blood. The hæmorrhage stopped. On September 19, Dr. Meyer examined the case. On the abdominal end of the right tube, but inseparable from the ovary, a tender swelling of the size of a big walnut could be felt. Symptoms of collapse set in a few days later, with no distinct evidence of internal hæmorrhage. On October 25, severe symptoms set in after metrorrhagia; there was no doubt that bleeding was going on internally. The patient rallied, metrorrhagia continued, and on the night of October 28, she passed a membrane, which had all the characteristics of a true decidua of pregnancy. The hæmorrhage stopped on November 11. On February 19, 1889, only a small remnant of a big soft swelling, which was felt to the right and behind the uterus during the attack in October, could be detected. The patient was in good health when her case was published. The evidence that her second illness was of the same character as the first was strong. Dr. Meyer gives abstracts of nine similar cases (Lawson Tait, Kletzsch, Herman, Van Henkelom, Veit, Olshausen, and Bloch; three of the nine occurred in Veit's practice). Of these, only three were verified by abdominal section (one Olshausen, one Veit), or by post-mortem examination (Tait). The remaining six are open to doubt, as in Dr. Meyer's case.—*Brit. Med. Journal.*

RETENTION OF URINE FROM PROSTATIC OBSTRUCTION IN ELDERLY MEN.—DR. J. W. S. GOULEY says that a common cause of impediment to urination in elderly men was enlargement of the prostate, but it was only when the prostate was unequally enlarged that it so acted. The following forms of unequal enlargement obstructing the urethro-vesical orifice need in this paper be named: 1, general enlargement with excessive development of the posterior third of the lower isthmus; 2, enlargement of the posterior third of the lower isthmus without apparent increase in the rest of the prostate; 3, enlargement of one lobe which encroached upon the opposite lobe, obstructing the prostatic urethra; 4, unequal enlargement of both lobes, rendering the prostatic urethra tortuous; 5, multiple intra-urethral tumors; 6, intravesical enlargement of one lobe. The alterations of structure differed somewhat in their component elements. After discussing the symptoms, the means of diagnosis of the several forms of enlargement, especially of four, were pointed out.

Acute retention occurred among elderly men with incontinence as well as among those who had no hindrance. To temporize or rely wholly upon medicaments in its management was to place the life of the patient in great jeopardy. Select the catheter best suited to the case and introduce it. If called during the first twenty-four hours the bladder may be emptied at one sitting of three-quarters of an hour; but if on the second day, draw off only a third, and a little more than is secreted every two or three hours, emptying the viscus in a day or two. Special emphasis was placed on not drawing off too much at one sitting in older cases. The after-treatment should accord with the individual case, but never allow the bladder to again become over-distended. Irrigate the bladder once daily with warm boracic acid solution, 3 grains to the ounce, with the addition of one-fourth of peroxide of hydrogen solution. Chronic retention was also considered, and suitable catheters described. —*Medical Record.*

HYPODERMIC INJECTIONS OF CAFFEINE IN POST-PARTUM HÆMORRHAGES.—DR. MISRACHI, in the *Arch. of Obs. and Gyn.*, highly recommends hypodermic injections of caffeine in post-partum hæmorrhage, especially in such cases as require immediate aid, and after great loss of blood has taken place. It is especially useful in country practice, when perhaps, the physician has just come from a case of infectious disease, and there is not time for auto-disinfection preparatory to introducing the hand into the uterus. Caffeine acts more quickly than ergotine, and is more stimulating than ether. The formula of the fluid for hypodermic use is as follows: Benzoate of soda, 3 grams; caffeine, 2.0 to 2.5 grams; aqua destillata, 6.0 grams or *quantum sufficit* for 10 cctm. Every cctm. contains 0.25 grams of caffeine. The solution is administered warm, from

six to ten injections in the course of the day. Misrachi has witnessed such brilliant results from it that he now carries this solution regularly in his obstetrical case. Tablets of benzoate of soda and caffeine, to be dissolved in boiling water when needed, will do instead of the standard solution.—*Archives Gynecology, Obstetrics and Pediatrics.*

THE SURGICAL TREATMENT OF EMPYEMA.—DR. A. E. MORRISON reports in the *Edinburg Medical Journal*, twenty cases, the ages ranging from 8 months to forty-three years. Of these all but one, a starved infant of eight months, recovered. In five cases prior to operation pus had been expectorated. In one a cure was effected by this means alone, without operation. In one alone, after a slow and tedious convalescence, the pus was absorbed without operation. Two cases were complicated by phthisis, one of which died after cessation of discharge from the pleural cavity. In two instances excision of a portion of a rib was required.

In performing the operation the strictest antiseptic precautions were observed. The skin incision was vertical, the incision through the muscles horizontal, along the upper border of the seventh rib. Injection of the cavity was in no case employed.

The following conclusions are drawn:

1. In the diagnosis of empyema the only certain sign is obtained by the exploring needle, and this, carefully used, is perfectly safe.

2. Antiseptic incision—the wound being sufficiently large to admit a full-sized drainage-tube in the posterior axillary line, and made with the patient on his back—drainage, and careful dressing are all that are required.

3. The time for healing in uncomplicated cases should not exceed four weeks.

4. Double openings, irrigation of the pleura, and excision of the ribs are unnecessary and harmful if the case be seen before an opening has formed through the skin.—*Archives of Pediatrics.*

WHAT IS THE BEST METHOD FOR PREVENTING INFECTION OF OPERATIVE WOUNDS?—In a paper read before the Illinois State Medical Society, DR. L. M. MCARTHUR stated that one half of the primary wounds, under the present methods, are dressed aseptically at the time of operation, and then only become infected at the redressing. Operators under excitement are inclined to drop into careless habits, and proceed somewhat after the following fashion: They call for a questionable basin, and dropping into it an indefinite amount of carbolic acid, proceed to remove the dressings without any such formalities as we were satisfied were essential at first. Here is where the fallacy lies to-day. Too great carelessness at the redressing permits infection and encourages the skeptical in the belief that there is nothing in the principles of aseptic surgery. Before the old dressing is removed a stream of 1 to 1,000 should be ready and playing on the inner layer of gauze as it is being removed, and during the time of exposure of the wound. Having rendered the parts clean, they can best be kept so by providing, in addition to the regular dressing, a heavy dressing of absorbent cotton, not with the idea of catching discharge, but with the object of filtering the atmosphere which is to gain access to the wound through the dressings. —*Medical Record.*

LEPROSY AND VACCINATION.—The September number of the *Occidental Medical Times* includes a joint article by DR. SWIFT, of Molokai, and PROFESSOR MONTGOMERY, of San Francisco, entitled "An Interesting Case of Anæsthetic Leprosy apparently following Vaccination." The details are thus given: "Peke, male Kanaka, aged 25, parents healthy. Has had two brothers and three sisters; one sister died at the Leper Settlement, a leper of the tubercular type. Peke has been a leper of the anæsthetic type for ten years, seven of which have been spent at the Leper Settlement. In 1878 he was vaccinated, and about one year after symptoms of leprosy appeared, and there is now a large anæsthetic scar at the site of this vaccination. He has during his whole life associated with lepers. Sixteen months ago he was a fine strapping-looking fellow, and was employed as policeman and gravedigger at the hospital at Kalawao." The authors further remark that "one of the most interesting points in this case is that Peke had been vaccinated one year before developing symptoms of leprosy, and that the vaccination scar became anæsthetic; might it not be that with the vaccine virus the virus of leprosy had also been inoculated?" This is a fair example of the bulk of the evidence as yet brought forward connecting leprosy with vaccination. Here is a patient living all his life in a leprosy country, and subject to all the conditions —diet, contagion, and what not—which may have causal relation with the disease; but because he happens to have developed leprosy a year after he was vaccinated, and now (eleven years subsequently) shows an anæsthetic patch at the scar, he is adduced, *post hoc ergo propter hoc*, as an instance of the probable inoculation of leprosy by vaccination. Remembering Arning's important observation of leprosy bacilli in vaccine lymph taken from a leper, it is not to be denied that such inoculation may be occasionally possible; but, in spite of the mere expressions of opinion of medical men and others in Honolulu and elsewhere, it may be said that we have at present no clear and indisputable facts proving that leprosy has been spread by means of vaccination.—*Brit. Med. Jour.*

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SATURDAY, NOVEMBER 22, 1890.

REMARKS ON INSANITY.

There can be no greater misfortune than insanity,—disease of the highest expression of life,—that complex manifestation which for want of a more descriptive name is referred to as *mind*. It seems indeed a fortunate thing for our race that disease of the organic basis of mind is far less frequent than disease of other less important organs. It would seem as if a Divine wisdom had thrown a protective arm around the flower of all human existence, to ward off the arrows of disease and of decay, for certainly in the immense majority of cases it is preserved intact through many years of the gravest forms of bodily illness. Nevertheless this is one of the human realities and is a constant problem in the minds of all having a regard for the highest development of the race.

Perhaps no other thing furnishes more material for serious consideration respecting insanity, and its terrible ravages among all classes of people, than a visit to the wards of any large asylum, and a glance at the miserable wrecks of chronic cases with which the acute storm of insanity has filled our State institutions. This survey of whole wards of terminal dements will not only prove to all a pitiable sight, but will also impress one, as nothing else can, of the importance of early and careful treatment of acute cases, and one involuntarily thinks "can nothing be done further in the present state of our knowledge to lessen this overwhelming percentage of the chronic insane?" This question we think is one that is more strongly present than ever before in the minds of the generous, the philanthropic, and the humane scientists of to-day. It has been the main-spring of all the so-called reforms which have been and are constantly being tried in all civilized countries to alleviate the condition of this unfortunate class. That the progress has been great all will admit, and for proof one has only to glance backward a few years, but the most sanguine will equally acknowledge that we are as yet only upon the threshold of discovery in this branch of medical science. How little is known of the real cause of the various psychoses! How far we are from any definite pathological classification of insanity! Perhaps the many difficulties in the way of brain investigation is sufficient excuse for the fact that this branch of pathology has hitherto been far behind the pathology of other less important diseases. At last, however, some definite progress has been made in this direction and with the many workers in our asylum laboratories the world over, we may justly hope for more light upon the psychical diseases. On the other hand the physiology of the mind is by no means clear, and in this connection we notice an interesting article by DR. EDWARD COWLES, superintendent of the McLean Asylum, Massachusetts, in a late number of the *American Journal of Insanity*.

Dr. Cowles' article is entitled the "Mechanism of Insanity," and the first of it is devoted entirely to a consideration of the normal elements of mind. It is a plea for a close consideration of the normal mind and is well worth reading. If this sort of knowledge was more universal it might lead to earlier diagnosis and treatment of mental diseases. Since a very insignificant proportion of the chronic cases of insanity recover,—and to verify this statement any asylum report is sufficient,—the treatment of acute cases becomes a most important subject, and demands that our fullest knowledge should be employed towards this end. Certainly the truest State economy is the most liberal expense for the investigation of the symptom-groups which are termed insanity. This feeling has inspired the liberal legislation of the last few years in many of our States, in providing State care for the insane. The wisdom and humanity of this law are apparent to all who will read of the horrors of some of the "county houses" in the States in which these reforms have been inaugurated, and the subject thoroughly venti-

lated. We sincerely hope that soon the county alms-house insane asylum will have become a thing of the past, and that all the indigent insane will receive all those advantages which a State asylum possesses over the miserably kept county houses. A brief article relating to the history of the treatment of insanity has been writtten by ORPHEUS EVERTS, M.D. (*American Journal of Insanity*, January 18, 1890), and concisely gives an idea of the progress which has been made. His paper is a very brief, incomplete notice of the subject, but for the general reader will convey an idea.

Notable among reformatory measures are the "cottage asylum" and the "family system," the latter of which has been in successful operation in Massachusetts; but time only will conclusively prove whether these measures will fill the wants of the growing problem of the indigent insane. Then we note special wards for acute cases, extra appliances for their treatment, and ample medical attention; all of which attest the growing popular sentiment that seeks the restoration, so far as possible, of this afflicted portion of humanity. As research and advancing science indicate the way, the men whose lives are spent with the insane have not been slow to follow.

A field which promises most for our future knowledge of insanity is that of pathology, and here the workers are multiplying, laboratories being now established in the largest asylums of this country for the special investigation of the changes of the nervous dements. An immense amount of material, which formerly passed unnoticed, is now being carefully examined and the results recorded. Surely it is reasonable to hope from this direction new light upon the treatment of the acute psychoses, and upon the almost total darkness of our understanding of even the simplest forms of mental derangement.

That the practical doctor and the alienist are gradually coming into closer relationship, as the physical basis for psycopathic disorders is being more firmly realized, cannot be doubted. We should at least congratulate ourselves that we live in an age when the insane are no longer treated as human outcasts, when the mass of the people are beginning to realize its true nature, as allied to other diseases, and that it is as much a definite disease as is typhoid fever or pneumonia. We should be thankful for the progress already made, and for the more brilliant hopes for the future; since science is lending all her aid, and a more living human sympathy is yearly being evinced, towards the better understanding of the prophylaxis, nature, and rational treatment of insanity.

Lately there has been a discussion in the journals as to the advisability of the admission of the acute cases of insanity into general hospitals, which are suitably provided with separate apartments for their care. Anyone who has had a practical experience with such cases in a general hospital will not think this a generally advisable procedure, unless *very complete separation and isolation* for such cases can be afforded—an impossible thing in many of our city hospitals. We believe that in time separate and distinct hospitals for the treatment of the acutely insane will be provided, such as has already been done in London, and that such an arrangement is the ideal manner of caring for them. This ideal hospital of the future will have its list of attending and consulting specialists, and any advantages and appliances which science can suggest will be used to prevent the present high rate of chronic cases.

That such a plan for the indigent insane is Utopian we freely admit, but still the progress made in the past twenty-five years justifies our highest hopes for the future.

TREATMENT OF DIPHTHERIA.

That this disease is to be classified among the acute infectious disorders, dependent upon a specific infectious microörganism, is now generally believed. Whether the disease is at first a local trouble, with secondary infection of the organism, or whether it is a constitutional affection from the beginning, with local manifestations, are questions upon which the profession is still divided. Certain it is that abundant clinical experience has taught the value of antiseptic applications to the affected part. This rule has been evolved in the face of constant reiteration of the constitutional nature of the affection and the consequent valuelessness of such local treatment. We may remark in this connection that recent experimental work upon the Klebs-Löffler bacillus has shown that it is capable of producing an exceedingly poisonous albuminoid, when grown in nutrient media. This experimental fact lends additional weight to the

clinical value of local antiseptic measures in this disease.

Dr. Herman Wolf (*Therapeutische Monatshefte*, September, 1890) has borne strong testimony regarding the antiseptic value of menthol in these cases. He proceeds according to the following method: A powder is prepared containing one part to ten or twenty of sugar, this, by means of a camel's hair pencil, is carefully applied to the false membrane and inflamed mucosa, which should have been previously cleansed from all secretions; if the nose is involved small quantities are blown into the anterior nares and post-pharyngeal space. If the process has extended to the bronchi, it may be employed in the form of a fine spray by inhalation. He claims for menthol that it is quite free from toxic properties, is pleasant in odor and taste, and has a greater antiseptic value than most of the usual gargles and sprays. Of the value of complete and early local antisepsis he has no doubt.

EDITORIAL NOTES.

Decline of the French.—The French political economists in discussing the vital statistics of their country as recently published express much apprehension. It is stated that never since 1870, has the marriage rate been so low as it was in 1889, in which year there was a decrease of 3,900 in the number of marriages compared with those that were contracted in 1888. With respect to births, the decrease last year, compared with the preceding one is put down at 2,000.

Despite the fact that the country is richer in resources than most of its neighbors, the fact remains that the number of marriages goes on decreasing, and in addition, there is a distinct purpose on the part of married couples to limit the number of children. This is more perceptible amongst the class that is called well-off than amongst those in a humbler position; but the children born to poor parents are too often sent a few days after their birth to some distant part of the country, where they soon drop out of life. There are also statistics belonging to illegitimate births based upon the ratios of the different peoples of Europe, but though the analysis may be of interest, they seem in the main to be explained on the score of obstacles to matrimony, as inadequate means or possibly parental opposition.

As it is, the individual exalts himself above all community interests or moral considerations in thwarting nature by preventive means, or a resort to abortion outright. Such crimes being secret are of course well guarded, but as every physician suspects their practice is widely spread. The penalty falls upon the race in its being displaced by a more prolific one and finally the catastrophe of utter extinction ends the history of its achievements. When the abortionists began to swarm into Rome, they also beckoned on the barbarians who made the imperial city a contemptible object of commiseration. Perhaps our late census may reveal truths equally unpleasant and the American, whose parents have so ingeniously conspired to keep out of the world may even cease to be a factor in the raging battle of races. There is much need of fellowship between the moralist and the physician. The Sybarite who drifts into all kinds of perversions, being an enemy of society, deserves at the very least, exile if not execution. Let us anyhow face the truth that there are many other sinners besides the French.

The Late Canon Liddon and the Medical Fraternity.—In the death of the Canon of St. Paul's, London, the medical profession has lost a sincere friend. He was the son of a physician, and near relations of his follow the same calling in the city of Taunton. He ever manifested, in his public addresses, a most sympathetic bearing and even laudatory expression towards our profession. Canon Liddon seldom let slip an occasion, in the pulpit of St. Paul's Cathedral, when he could fitly say a kindly word concerning the duties, worth and work of medical men. His was a nature, finely strung to catch the chords that vibrate under the influence of physical suffering; and he would be disposed naturally to accord his grateful sympathy to those who moved among the scenes of suffering intent on their allaying, and sparing not themselves where their labors could do good. In his early days, no doubt, he had many opportunities to get an inner view of the daily round of the responsibilities and labors of his medical relatives, and a deep and abiding impression was left which made him ever after a sympathizing ally of the healing art.

The Fruitful Berlin Congress.—As one sucessful Congress leads inevitably to others, we have the right to expect that those that follow

the great Berlin gathering will be pregnant with immense benefits to medicine. Furthermore, Hymen is said to have done an unusually large business at Berlin; according to one of the papers of that city, one of the results of the meeting was the publication of four hundred engagements of marriage. Any nation that desires to boom matrimony should have an International Medical Congress without delay.

DR. EDSON of New York has said: "From a sanitary standpoint the milk supply of cities is second only in importance to the water supply. The most vulnerable portion of the community to the attacks of disease are children."

IT is said the Marine-Hospital Department contemplates having medical men attached to all United States Consulates, who will examine all persons desiring to emigrate to America, and ascertain their physical fitness.

ALCOHOL AND CHILDHOOD.—A Report of the Conference on "Alcohol and Childhood" held recently under the auspices of the Church of England Temperance Society (the Duke of Westminster in the chair) which excited so much attention by reason of the number of influential medical men attending it who had not hitherto identified themselves with the Temperance movement, is about to be published by the Society in a separate form.

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.—The seventeenth annual meeting of this Association will be held in the City Hall, Streator, on Tuesday, December 2, 1890, at 10:30 A.M. Special Reports: "Tenth International Medical Congress," by E. P. Cook, Mendota; "The Code of Ethics," by J. W. Pettit, Sheridan; "A Case of Hydrophobia, or Lysophobia," by W. A. Mansfield, Metamora; "The Use of the Obstetrical Forceps," by T. H. Steele, Paw Paw; "Management of the Newborn Infant, and the Child under the Age of two Years," by F. C. Vandevort, Bloomington.

This Association having nearly doubled its membership within the last five years, embraces a steadily widening territory and influence, and presents a most healthy growth. It seeks to promote the social and professional relations of its members; to afford an opportunity for the mutual comparison of experience and results among those practicing within the same locality; and to stimulate and encourage the earnest medical student and practitioner in his individual effort within the field of professional progress. Its proceedings are of general interest to the profession; its discussions practical and free, and the relations of its members fraternal and unreserved. Physicians eligible to membership are cordially invited to unite therewith and contribute papers, clinical reports or professional experience, and engage in the discussion of the topics presented at its meetings. Copies of by-laws and membership blanks forwarded on application to the Secretary, Wm. O. Ensign, Rutland.

A GLASS AND METAL OPERATING TABLE — The *N. Y. Tribune* says: French ingenuity has devised a surgical operating table, which, as a decidedly original conception in that line, has elicited much interest. The table, which measures seventy-eight inches in length by twenty-six inches in width, stands thirty-six inches from the floor, and consists exclusively of glass and nickel-plated iron. It is composed of four triangular plates of glass inclining to a common centre by a declivity of an inch and a quarter, converging at their apexes to a central opening one inch in diameter, in which is fixed a metal ring, through which fluids may pass into a rubber tube to the floor, and it is supported by four legs, connected for the sake of stability by cross-bars; it moves freely upon large castors, and though weighing 280 pounds, can be moved with ease by a single person; there are no arrangements for varying its elevation, any desired change in the attitude of the patient being accomplished at will with the use of rubber cushions. At the head of the table, where stands the assistant, swings a basin large enough to contain everything needed for anæsthesia, with ether, chloroform, also forceps, etc.; closed, it disappears under the table, but a very slight traction places directly under the anæsthetist all the articles needed. The table is also measured off into centimetres in its entire length, so that measurements may be rapidly taken.

SILENT HARMONIES.—A new medical club in Boston has been organized for the mutual cultivation of its members in music, and is known as the Physicians' Musical Culture Society. It is said that each member is in duty bound to compose some fresh air for the sick-room.

TOPICS OF THE WEEK.

THE RELATIONS BETWEEN PHYSIOLOGY AND MEDICINE.

Dr. James Andrews, in the course of the Harveian Oration delivered at the Royal College of Physicians, London, refers to this subject in words as follows:

A very common reproach cast upon our profession is that we pretend to be, and are not, scientific; that, to quote an old sarcasm, our occupation consists in putting drugs of which we know nothing into bodies of which we know less. There is just sufficient truth in such criticisms to make them somewhat unpleasant to those for whose good they are no doubt intended, but they derive the keenness of their sting from our own shortcomings and mistakes. We claim too much and do too little for medicine. We forget that our duty as medical men is twofold—to practice an art and to study and advance a science; that we are bound to make the best use we can of the knowledge within our reach, and, if possible, to add to it in the using, but this last is not our chief duty. We dare not sacrifice the interests, the life of one single patient to the advancement of science. If our conscience were to cease to forbid us to do this, then the sooner modern science deprives us once for all of such a treacherous guide the better for the world will it be. A man may be a first-rate practitioner and yet have no title whatever to be ranked among scientific physiologists, as a sailor may be a first-rate navigator without being in any proper sense of the word a scientific astronomer or mathematician or physicist. Yet, in spite of this admission, the physiologist ought to be the last to taunt us with ignorance and empiricism, for his own science would be far more imperfect than it now is were it stripped of all that it owes to the results of medical and surgical practice. One of the best, if not the best, definitions of "medicine" is that which describes it as "applied physiology." If we fail to attain to that ideal, if we are compelled daily to act upon probabilities in place of scientific certainties, then the blame must rest at least as much on the physiologist as on ourselves. He fails to supply us with the knowledge which we require and which he alone can give us. Medicine is thus but one of many instances of an art stunted by the insufficient development of the science with which it is connected and on which it rests. I do not mean insufficient in a general sense, but insufficient for certain special purposes. Permit me to anticipate a very possible criticism upon what I have just said. It may be thought that my words are an unfair attack upon physiology, and that, safe from immediate contradiction, I have sought to defend medicine by abusing the very science to which, of all sciences, we are most deeply indebted. Now, if I have, indeed, done this thing, I have been guilty of the basest ingratitude; I have ignored the splendid services which physiology has rendered to medicine, services which we believe to be but the earnest of others yet more splendid in the near future. If physiology is, as it seems to me, not yet equal to all the requirements of medicine, that is certainly not due to the indolence or weakness of those who cultivate it, but to the inherent difficulties of their task. They have done all, and more than all, which we could have looked for. But at the sight of sickness which we cannot heal we grow impatient, unreasonable, and long for knowledge not yet within the reach of man. We even refuse to recognize the wisdom of those who decline to attempt to solve by scientific means problems not yet ripe for such solution. However, although the object matter with which we deal lends itself unwillingly to strict scientific method, although from its very nature we are unable to submit it to direct experiment, except in most imperfect fashion, it may still be studied and observed in a scientific spirit. Every case of disease may be, ought to be, looked upon as an experiment in practical physiology, an experiment carried out with transcendent skill by nature herself, but which she leaves it to us to observe, to register and to interpret.

Now, in this matter of scientific observation it cannot be denied that we fall very far short of what we might accomplish. It will do our profession no good to dwell upon the legitimate excuses which may in part explain our failure; rather let us acknowledge that failure and use our utmost efforts to remove it. Nor are leaders wanting who can teach us how this may best be done. We need not look beyond the circuit of our college to find men who can and do carry on their daily work in this scientific spirit, approving themselves herein worthy followers of the example of Harvey. Surely we cannot regard Harvey the physician as less scientific than Harvey the anatomist and physiologist, when we find him showing from certain familiar reasonings that the circulation is matter both of convenience and necessity. In his hands the physical signs of an aneurysm, the effect of extreme cold, the phenomena which attend "contagions, poisoned wounds, the bites of serpents and rabid animals, lues venerea, and the like"—all these are made to supply probable and cogent arguments for the truth of the doctrine of the circulation of the blood. Were our clinical knowledge as carefully accurate in its statement of facts, were it always used as soberly and to as good purpose as Harvey's was, then there would be, there could be, no outcry raised against us on the score of credulity or of want of scientific method. When he had arrived at a knowledge of the circulation of the blood by means of anatomical researches and vivisections, Harvey at once applied this knowledge to the explanation of clinical phenomena, up to that time inexplicable. He then used the fact that this explanation was a simple and adequate one as a new and strong argument for the truth of his discovery. That this intimate connection, this solidarity, between physiology and medicine is no longer recognized so fully as it once was is much to be regretted, for it is injurious to both lines of study, and has arisen, at least in part, from faults on both sides. But this view must not be pushed too far. We must not lose sight of the fact that the relationship between physiology and medicine has in many ways greatly changed during the last 250 years, and that such change is a necessary consequence of the progress made by physiology. In Harvey's time, in any classification of the sciences, physiology might have been regarded as a department of medicine. I need scarcely say that now

the reverse would be the case. The two deal, it is true, with the same object matter, for there is no physiological fact or law which is without some bearing upon medicine; and, again, every medical fact or generalization, even those most purely empirical, is more or less important to physiology. But their aims and methods are so different that they tend inevitably to become more and more sharply differentiated from each other. The goal of physiology is truth—*i. e.*, perfectly trustworthy knowledge of a certain class of facts and laws; and this independently of any use, good or bad, to which that knowledge may be put. The goal of medicine is power—*i. e.*, ability to manipulate certain natural forces in such fashion as to produce certain effects. No doubt theoretically the two ends coincide, and we may hope that in some remote future they will do so in reality and perfectly. For the present we must be content with having in one direction much knowledge which confers little or no power, and on another side very imperfect knowledge which yet brings with it very great power, too often ill-directed. Again their methods are different. Physiology by slow degrees has come to rely more and more on purely scientific modes and instruments of research, and to apply them by preference to matters which can be brought to the test of direct experiment. Medicine, on the other hand, has no choice but to remain, so far as it has a scientific side, a science of observation; for anything like effective investigation of the matters with which it deals by direct experiment is impossible. As physiology slowly reduces to order the apparently hopeless confusion of so-called vital actions the easiest questions are attacked and answered first, and thus those which have to be faced later in their turn are more and more difficult, more and more refractory, to scientific analysis. Now, these more difficult questions are often of vital importance to medicine, and in them lie dormant vast possibilities of increased knowledge of the nature of disease, of increased power over it. And yet from the great difficulty of subjecting them to experiment physiology may seem for a time to fail us, and the task of employing physiological results to explain clinical facts, or to form the basis of rational treatment, becomes harder than ever.—*The Lancet.*

PROFESSOR ROBERTS BARTHOLOW.

With reference to this distinguished physician and teacher we quote the following from *The Times and Register* of November 1:

"Up to the time of writing the situation at Jefferson remains unsettled. Prof. Bartholow declined to take a vacation, and the Trustees have declared his chair vacant, and will elect his successor on Monday. While Dr. Hare is most frequently spoken of as the chosen successor, many urge Drs. S. Solis-Cohen, T. J. Mays, Frank Woodbury; and Dr. Potter, of San Francisco, is also mentioned prominently. The action of the students, though prompted by the generous feeling of affection to their old instructor, was ill-advised in the extreme. Nobody has the interests of Jefferson at heart more than the Faculty and Trustees, and they may certainly be credited with having very good reasons for displacing as strong a man as Dr. Bartholow. It is not always best for the interests of either party that these reasons should be made public; and serious injury might have resulted had the students persisted in their action. As a graduate and well-wisher of Jefferson we trust that the result will be favorable to her best interests. Of the gentlemen named, Dr. Cohen would be, perhaps, best fitted to deal with an unruly class. He has won an honorable place among Philadelphia physicians, and displayed talent as a teacher. Dr. Woodbury would bring to the chair a ripe professional scholarship, with considerable practical experience as a teacher. As a clinician he has no superior. Dr. Potter has made a very favorable impression with his book on therapeutics, which has been adopted as a text-book in many colleges."

The Lancet-Clinic, of the same date, has an exceedingly interesting editorial upon "Overstrain and Overwork," evidently prompted by the sad lesson. Sketching with a masterly hand the salient points in the life of Dr. Bartholow, the editor closes his article with these words:

"A pall of mournful sadness comes over us as we contemplate the thought of this termination of such a career as that of the indomitable, the gifted Dr. Roberts Bartholow. A lesson, a parting lesson, is hereby taught, and should be thoroughly heeded by those who feel the iron grip of an insatiable ambition that is inordinate in its character, that leads and goads the discontented to a violation of physiological laws in order to be able to accomplish some specific purpose that may be ever so laudable in motive. To some we say: *Slow up;* lest a link be weakened and the golden bowl broken."

THE INTERNATIONAL MEDICAL CONGRESS AT BERLIN.

The first volume of the *Transactions* of the International Medical Congress at Berlin is already in the press, and will be published in November. In addition to the business part of the proceedings, lists of delegates, members, etc., it will contain the report of the general meetings of the Congress. The work of editing the *Transactions* is in the hands of a committee composed of Professors Virchow, von Bergmann, and Waldeyer. The expenses incurred by the city of Berlin in connection with the recent International Medical Congress amounts to some 80,000 marks, so that, of the sum of 100,000 marks voted by the municipality, a balance of 20,000 marks (£1,000) remains in hand. The expenses included the cost of the *Festschrift* presented to members of the Congress, the banquet in the Rathhaus, the exhibition, the sanitary and other inspections, and the electric illumination.—*Brit. Med. Journal.*

PROPAGATION OF DISEASE.

M. G. Alessi has confirmed and extended the results of Grassi on the part taken by flies in the propagation of disease. Having fed flies on the matter expectorated by tubercular patients, he has detected the bacillus of tuberculosis in plenty in the intestines and in the excretions of the insects. The bacilli are alive and active, and if introduced into the tissues of animals, they multiply and produce characteristic lesions. The microbia of cholera, of typhoid fever, splenic fever, etc., are likewise swallowed by flies, and after passing through their bodies, retain all their vitality and virulence.—*Research.*

PRACTICAL NOTES.

PRESCRIPTION FOR ALOPECIA.

Dr. Morvan, in the *Union Médicale*, recommends the following salve in alopecia:

Gallic acid, grains, 45.
Essence of lavender, minims, 15.
Castor oil, drachms, 6.
Vaseline, drachms, 12.

M. This ointment should be well rubbed into the parts affected, every night.

OINTMENT FOR PIGMENT SPOTS OF PREGNANCY.

The following prescription for the treatment of cloasma of pregnancy is quoted by the *Revue de Therapeutique*.

℞— Zinc oxide, 1 drachm.
White precipitate, 1½ grains.
Castor oil, 2 drachms.
Essence of rose, 10 drops.
Cocoa butter, 2 drachms. M

Apply morning and evening.—*Med. News.*

FOOD FOR INFANTS.

Dr. Louis Starr recommends the following as the best substitute for the mother's milk in gradual weaning of a child, say at ten months; it may also be employed to supplant the breast when the mother's milk is insufficient:

Cream, f℥ss;
Milk, f℥iiss;
Sugar of milk, ℥ss;
Water, f℥j.

Should this quantity fail to satisfy the child, all the ingredients except the cream may be increased until the mixture measures six, eight or twelve ounces.

TELLURATE OF POTASSIUM IN NIGHT-SWEATS.

According to *La Médecine Moderne*, October 21, 1890, tellurate of potassium has been found by Neusser to be valuable in the suppression and diminution of night-sweats. He employs one-third of a grain, in pill form.—*Medical News.*

CHRONIC OVARITIS.

Aside from the reflex physical derangements, both local and general, attending chronic ovaritis, there is usually present a greater degree of emotional disturbance than is found in disease of any of the female genital organs. This is not strange, since it is admitted that the ovaries give to woman, in a great measure, all of her characteristics of mind. When the inflammatory conditions are unfavorable for recovery, the emotional derangement is often progressive. In the early treatment counter-irritants and alteratives often give good results, especially the administration of small doses of the bichloride of mercury three times a day. But, should the tissues of the organ become destroyed and suppuration take place, removal will alone give relief.—Godfrey, *Times and Register.*

LOCAL ANÆSTHESIA FOR SLIGHT OPERATIONS.

For operations upon small abscesses, opening fistulous tracts, or removing superficial growths, it is recommended that local anæsthesia be secured by atomization of the following solution:

℞— Chloroform, 10 parts.
Sulphuric ether, 15 parts.
Menthol, 1 part. M

The anæsthesia which is thus obtained lasts from two to ten minutes.—*Medical News.*

FOR ACUTE PLEURISY.

℞. Ext. jaborandi fl., ℥j.
Sig. Take at once, in a cup of hot water.
℞. Sodii citrat., ℥ij.
Sodii acetat., ℥ij.
Sodii salicylat., ℥ij.
Aquæ menthæ pip., q. s., ad f℥vj.
M.—Sig. ℥ss every two to four hours.

Hot flannels to chest, sprinkled with laudunum, and a towel pinned tightly around body; dry diet; rest in bed; flannel underclothing and night-dress.—Waugh.

SOLUBILITY OF NEW MEDICINES.

The following table of solubilities of some new medicines may useful to some of our readers:

One part of	Water.	Is soluble in Alcohol.	Ether.
Antifebrine	200	10	10
Antipyrin	1	1	50
Antithermin	slightly soluble.	slightly soluble.	slightly soluble.
Cocaine hydrochlor.	5	10	
Iodol	5000	3	1
Paraldehyd	10		
Pyrodine	1	1	
Quinoline tartrate,	80	150	
Resorcin	1	1	
Salol		5	5
Thallin (sulphate)	7	100	
Thallin tartrate	10		
Urethane	1	0.6	

—*Pharm. Record.*

FORMULA FOR A GUAIAC GARGLE.

To not a few of our practitioners, who have passed their meridian, guaiacum is esteemed only a little less than a specific for "sore throat," tonsillitis especially. The following is a combination for a gargle that has been very useful:

Ammoniated tincture of guaiac, 4 drachms.
Compound tincture of cinchona, 4 drachms.
Chlorate of potash, 2 drachms.
Strained honey, 4 drachms.
Powdered acacia, q. s.
Water, 2½ ounces.

To be used as a gargle, and a teaspoonful may be swallowed, every second hour.

SOCIETY PROCEEDINGS.

Chicago Medico-Legal Society.

Regular Meeting, October 4, 1890.

EDMUND J. DOERING, M.D., PRESIDENT, IN THE CHAIR.

DR. M. H. LACKERSTEEN read a paper on

THE SCIENTIFIC ASPECTS OF MEDICAL HYPNOTISM, OR TREATMENT BY SUGGESTION.

(See page 704.)

DR. ARCHIBALD CHURCH: Mr. President, as you have just stated, Dr. Hoag and myself were informally appointed by you as a sort of committee of control to coöperate with Dr. Lackersteen in such experiments as might be possible for us to make looking to the determination of the therapeutic value of hypnotism. In a conversation held on the 12th of March last we arranged that patients of a suitable sort secured by any of us should be first seen and carefully examined by Dr. Hoag or myself, and then subjected to treatment by suggestion, by Dr. Lackersteen, such treatment to be at times under our observation with every opportunity to examine and note the condition of affairs as the cases progressed. For a number of reasons we have been unable to carry out these details. To speak personally, patients coming to me in dispensary practice refused to be sent down town for hypnotic treatment, and patients in my private practice could not be sent for a number of reasons. So far as the committee have a report to make it is absolutely negative with this exception: two cases were referred to me by Dr. Lackersteen for diagnosis and examination previous to their being treated by him. One was a medical gentleman from Texas, a maniac with well pronounced delusions and hallucinations of hearing. He subsequently went to Dr. Lackersteen, but I believe the séance was a failure; shortly afterwards the man left town suddenly, pursued by his delusions of persecution. The second case was one of a young lady of well-marked hysterical make-up, presenting a large number of hysterical manifestations in her daily conduct, indications of the malady. I did not see her subsequently, but I am informed that after a number of séances she commenced teaching school and now has a responsible position, which she fills to the satisfaction of all concerned. At the time I saw her this would have been impossible.

It now remains for me to give the little personal experience I have had with hypnotism. Hypnosis is usually produced by fixing the eyes upon a bright object held at a short distance, and suggesting sleep. In my first ten experiments, as I was anxious to eliminate the personality of the hypnotizer, I did not suggest to these people that they were to be hypnotized, but had them fix their eyes and attention upon a bright object held near the eyes and above the ordinary line of vision. They maintained an intense gaze for from five to thirty-five minutes, depending upon their good-nature. I did this with a little trepidation, because I was aware of the experiments of Drs. Dercur and Parker where, merely by having the finger tips extended and the eyes and mind fixed upon a given object for from ten to thirty minutes, serious convulsions resulted. If this could be done by the physiological strain of a set of voluntary muscles, it would apply to the convergence of the eyes; but I am glad to say that in the ten examples I have cited there were no bad results, and no results of any kind whatever.

In the next seven experiments, besides using a bright object, I told my patients that after a given time they would surely go to sleep; but no sleep was produced. The last case was that of a hysterical girl who had been bed-ridden for two years. I explained hypnotism to her as well as I could, I dilated upon what had been accomplished, interested her in it, and she was finally very anxious to be hypnotized, desiring hypnotism or any other means that would relieve her sufferings. After fixing her attention by my fingers the eyes finally closed and I thought I had her hypnotized, and I said, "You are asleep," but she giggled, and giggling and hypnotism are incompatible. So I impressed upon her that the giggling must be left out, and after a number of séances marked by great perseverance and patience on the part of both, in two instances only I was able to establish a slight degree of "drowsiness," as she expressed it. After the suggestion she would appear to be asleep, the eyes would be closed, there would be a little quivering of the lids, I could see the eyeball was turned up under the lid, and I suggested that the pain, which had been her terrible complaint for a number of years, causing lack of sleep, would upon awakening be absent, and that she would sleep well at night. But the pain neither disappeared nor did she sleep, and consequently if it was hypnotism that was produced, it was of no value in this instance. This fact should be borne in mind, that where a mesmerist goes into a small community, he first exhibits his skill upon a subject he has brought with him, and professes his ability to hypnotize any one. To see is to believe in hypnotism as in other things, so on the second night the mesmerist will get two or three subjects from the audience, and the following night maybe half a dozen. In my experiments—and I presume the same difficulty will be encountered by all—I had no subjects to act as object lessons for those I wished to experiment upon.

I should like to point out some of the alleged dangers of hypnotism, because unquestionably it is a wonderful force. The examples which have been tested and published, and verified by unquestioned

authorities, no longer leave any doubt of the existence of such a thing as hypnotism. But it is well to know that the fire can scorch before playing with it. Sir Andrew Clark, as quoted in the *Therapeutic Gazette*, states that in his opinion, "the habitual practice of what is called hypnotism, among women, is very injurious both morally and intellectually." And in the *Medical Record* of recent date, Dr. Norman Kerr, of London, among other things asserts "that only a limited number of persons are susceptible," and I may add that only a very limited number of persons are capable of being hypnotizers; which leads to the conclusion that hypnotism must be of very limited utility: "that the after-effect is a disturbance of the mental forces and dissipation of nerve energy; that frequent repetition is apt to cause deterioration of brain and nerve function, intellectual decadence and moral perversion. That hypnosis is a departure from health, a diseased state; that hypnosis is a true neurosis, embracing the lethargic, cataleptic and somnambulistic states; that the dangers of hypnotism are great. That each séance may bring the hypnotee further under the control of the hypnotizer, with complete submission of the former to the will of the latter." We must not forget that the most enthusiastic of European hypnotizers detail cases that wander around their hospital wards, leading a mere vegetative existence which has been induced by repeated hypnotic treatments; men and women who at the slamming of a door or the crash of a bit of glass instantly go into a hypnotic condition in which they are the subjects of the caprice, malice or criminality of all about them. Any one producing a condition like this must look upon it, even if he is only remotely responsible, with anything but satisfaction. The dangers of hypnotism are very pronounced, so much so that the matter has been made the subject of legislation in Russia, and public demonstrations of hypnotism are prohibited. The medical fraternity only are allowed to use it for so-called therapeutic purposes, and this only with three medical men in conjunction. In Belgium it is restricted to the use of medical men, and in no instance can it be applied to girls under 18 years of age. In France its public exhibition is prohibited and the medical department of the army and navy has been interdicted in its employ. We are to remember that in our own country, cases are on record where individuals have gone from the excitement of mesmerism into the agonies and delusions of insanity, and down through dementia into the irrecoverable depths of imbecility.

The two claims for hypnotism is that it is a therapeutic measure and that it may be an aid to psychical research. It may be admitted that in functional conditions and undeveloped aptitudes hypnotic treatment has and will have a sphere of action more or less legitimate, but to use hypnotism to remove a headache or a toothache is, as a German writer has put it, gunning for sparrows with heavy ordnance. Besides, hypnotism must be repeated at short intervals, and this brings in again the danger of the proceedings, because its repeated use, will lead undoubtedly to an increased susceptibility on the part of the patient, in itself a mark of mental deterioration and lack of self-concontrol. The responsibility of the hypnotizer is of the greatest. To deprive a fellow being of his will power, be it only for a moment, and to substitute your own volition is in my estimation one of the greatest responsibilities in the whole range of human intercourse. Theologians tell us the Almighty himself has not assumed this prerogative, but has left man a free agent to work out his own salvation. The therapeutic use of hypnotism in conditions arising from gross pathological lesions is to be considered. Cases are on record where the pain of cancer has been controlled by hypnotism, of course the cancer has not been controlled, and in these cases it is comparable to the use of morphia for the control of pain. But if the disease runs a long course, I believe that mental deterioration will follow the use of hypnotic treatment, for it must be repeated daily. If hypnosis is, as some have claimed, an abnormal mental condition it is a serious question whether it will be of any value in psychological research. There are plenty of instances in which the will power has been blotted out, or the power of properly correlating ideas, and innumerable mental perversions have been studied, yet all these cases have not added very much to real knowledge of that group of diseases called psychological.

From all these considerations, and from the fact that abroad it has been found wise to control the exhibitions of hypnotism by stringent laws, I think that it is fitting for this society to adopt resolutions looking to the prevention of public exhibitions of hypnotism and to the limit of its employment to the medical profession. I do not wish to discourage hypnotizers, because I believe there is something in it of therapeutic value in proper cases, but I do believe those employing it should be protected and that those subjected to it should be thoroughly protected. A person should never be hypnotized except in the presence of reliable witnesses, and in the case of a woman, in the presence of her own sex. If these dangers I have mentioned are real the obligation upon the hypnotizer to acquaint the subject with them is as binding as in a case of laparotomy, and he should do this for his own protection. Yet if he does this as you will readily see very few will subject themselves to its influence. I desire to express my gratitude to Dr. Lackersteen for his brilliant paper, which is the best résumé of the subject with which I am familiar.

DR. J. C. HOAG: I think we are all prepared to admit that Dr. Lackersteen is an enthusiast,

and there is no doubt but that enthusiasm is necessary for the propagation of such ideas; but whether or not we accept hypnotism in its entirety, there is nevertheless, a great lesson to be learned from the practice of the hypnotists. To my mind the successful physician must necessarily be an enthusiast. If he does not believe in the efficacy of his remedies, if he gives his doses in a doubting manner, he can hardly expect to secure their best results. I remember as a student having Stillé's "Materia Medica" recommended to me for reading. I think if I had contented myself with Stillé and never read any other author I would have concluded my medical studies there. It is a ponderous work, and one reads it through without getting any definite ideas; and when one completes it he has nothing left which he can assert positively. So it is in our daily practice. If we look at the physicians who enjoy the greatest confidence of the community, we find they are the ones who have positive ideas and who impress their individuality upon their patients.

I have not seen any hypnotism done for a number of years, but I have seen some of it and I am prepared to believe that much of excellence lies in this method. Of course, there is always an element of danger in its practices, and the subject is still a comparative novel one, but so much am I impressed with its possibilities, that were I in Europe to-day, one of my first pilgrimages would be to Nancy.

I have never tried to hypnotize any one but I believe in the possibilities of hypnotism. I have read whatever has fallen in my way in this connection and have never yet seen anything, and presume there is nothing, that gives one a satisfactory explanation of its powers. I have read two or three brochures on the subject; one of which was by an Englishman, Dr. Tuckey. This observer had paid visits to Liébault, Bernheim, Charcot and others in France, and had returned to England very much prepossessed with the method. He had had considerable practical experience, and he gave an explanation of hypnotism, or at least led one up to a comparative explanation by an inductive method. This writer takes well-known facts with which we are all familiar and puts them together in such a way as to gradually lead one into the realms of the unknown, with the feeling that there was still something substantial under his feet; and he gets at the matter in some such way as this: For instance he takes the example of John Hunter, who said he could produce by will sensations in any part of his body by simply concentrating his thought upon them. Another writer said, that if twenty individuals would sit down in a room and look attentively at their little fingers a good many minutes with the idea that there might be something wrong there, most of them would have decided sensations of pain. Tuckey gives a report of a physician with a decided mitral valve-disease of the heart, who felt no uncomfortable sensations except when he was examining patients with a cardiac lesion, during these times he experienced great discomfort simply by having his attention drawn to his own condition. We are familiar with such facts as increased secretion from the kidneys caused by emotion, and the effect of concentration of thought upon the various secretions; for instance the flow of saliva may be retarded or increased by emotion. Again we have the effect of icterus, from violent emotion, such as hate or jealousy. Statements of this kind have long been familiar, and we know that in point of fact there is a substratum of truth in such stories. A great many cases are on record of paralysis of a functional nature of long duration which have been entirely removed and permanently cured by the powerful impression made upon the patient. Such is the case of a young lady who had been confined to her bed for a year and who, on being suddenly informed that an accident had happened to her brother, rose from her bed at once and went to him and took care of him and was afterwards in good health. Cases of sea sickness are often relieved in the same way, if the passengers believe that the ship is about to sink or are otherwise seriously alarmed for their safety.

A familiar example is that of medical students, who while they are studying the accurate description of diseases, fancy they have the ones in which they are most interested. It is a matter of common observance that medical authors very frequently die of the disease to which they have given the most attention during their lives. In regard to the effect of fancy in producing disease we have such examples as occurred recently in the illness and death of the Emperor Frederick; there were epidemics of throat disease due entirely to fancy. Idleness is a great factor in these matters. People who have little to do keep their minds concentrated upon the functions of their bodies, and are often the victims of disease, as we see in the case of hypochondriacs. Now where perversion of function comes on in this way it is apt to lead to tissue alteration. It has been said too, that the fixation of attention upon a certain part of the body will render us conscious of functions that are usually performed in an automatic manner. Sir James Paget, says that temperature may be elevated by nervous excitement. In hysterical neurosis the temperature may rise exceedingly without apparent cause. In the same way anæmia may be caused by depressing emotions, while pleasant surroundings are promotive of health.

Again, in the case of cerebration, some portions of the brain may become temporarily inhibited in their action by the activity of others, as in the familiar example of paralysis from fear, paralysis

of motion. An example is related of a burly farmer who was in perfect health and whose friends agreed to pronounce him in poor health and to impress it upon him that he looked badly. One after another they approached him in this way, until finally the man took to his bed and was actually sick. I would like to refer to one or two other cases: for example that of a Frenchman of noble birth who was condemned to death; his friends wished to save him from the ignominy of the guillotine and obtained permission from the authorities to try an experiment upon him. He was blindfolded and his arm slightly pricked with a sharp instrument and warm water allowed to trickle over his arm, and at the same time remarks were made to the effect that the man was going to bleed to death, that he was rapidly sinking, etc., until he actually died of syncope. Then there is the curious example of the fakirs in India producing an apparent suspension of vitality, so that they have been buried in the earth for weeks at a time and then taken up and restored to usual health. Colonel Townsend performed a similar feat, although he was not buried, but animation was so completely suspended that five or six professional men could discern no evidences of life.

Now the argument is that if death may be produced in this way, may we not look for cure in the same manner? If sickness and death may be produced in this way so may regeneration and health. And there is nothing fanciful in the cures of believers by pilgrimages to Mecca, to the Ganges, to the shrine of Our Lady of Lourdes, or to the shrine in Mexico of the Lady of Guadaloupe. Amulets are sometimes worn with perhaps very decided benefit. In olden times in England it was customary for the king at intervals to touch the people for the "king's evil," and it is on record that cures were made in this way and that the influence was one of great good.

Again, by attention the special senses may be sharpened, as in the case of the savage, the hearing is improved and the sight becomes very keen. In people who are obliged to pass judgment upon fabrics the sense of touch becomes very acute; the same thing is seen in the case of the blind. All these are examples of what may be done by what has been called *directed consciousness*. These are the main facts to which I wish to call attention, and by passing from familiar facts like these to the unfamiliar ones of hypnotism, we can see at least a constant progression. There are statements, to be sure, that seem utterly absurd, but as we approach them more closely we find more and more in them that appeals to the reason.

As an example of what has been done even by professional men in the way of injury to patients, I may cite the case of a woman who was readily hypnotized, so much so that it was almost impossible to tell in what condition she was at a given time, whether in her usual health or in one of the three hypnotic stages. This patient was kept under observation so long and was so often put in the hypnotic state, that she escaped, and being pursued was recaptured and experimented upon until she was finally sent by the government to the insane asylum. Her insanity was probably inevitable, but it seems to have been hastened by the ordeal which she endured at the hands of her attendants. I wish to thank Dr. Lackersteen for his interesting paper.

DR. D. M. BROWER: I wish to thank Dr. Lackersteen for his very interesting and enthusiastic paper. My experience with hypnotism has been quite similar to that of Dr. Church, and from observations that have run through several years I have come to the conclusion that there are very few people in the United States who are susceptible to its influence. I believe that the danger from the practice of this method of cure more than covers the possible benefits. I think the benefit is limited entirely to functional diseases, and it seems to me it must be limited to diseases that we have already reached by other means that are less dangerous. I most heartily endorse the suggestion of Dr. Church, that this Society declare its thorough disapproval of public exhibitions of this art. There has been going on for the last six months in London a public exhibition of hypnotism that attracts thousands; there is a similar exhibition in New York, and I presume we will have them here. I trust that this society, while not condemning the method as a curative measure, will put out a signal of danger, and at least insist upon some sort of legislative action that will limit its use to physicians under certain restrictions, and will absolutely prohibit public exhibitions of this dangerous method.

DR. T. P. SEELEY: I have but a word to say on this subject. I happen to have had a little experience in 1849 when I was a student in college, before I attended a medical college. The subject of hypnotism attracted considerable attention and I had the curiosity to try it, and found I was capable of hypnotizing, or mesmerizing, as we called it then. In one case I hypnotized a young lady, put her in a condition of anæsthesia, in which state she had a tooth drawn without any more apparent feeling than if she had been under chloroform. I hypnotized several individuals, among them one or two clairvoyants, and I was perfectly convinced at the time that there was something in mesmerism. I have always thought that the truth should be known and that the medical profession should investigate it. There ought to come no great harm from our knowing the truth; if there is a great deal of evil in this thing, there are evil persons, who will take advantage of the want of knowl-

edge of professional men. I believe there might be some knowledge gained by scientific investigation that would be of advantage to the whole community.

I am very glad to have heard Dr. Lackersteen's statements. I have not pursued the question and gained the knowledge I might have on this subject; I have used it at times in the cure of headache and for some other purposes. I give my testimony as to facts I knew forty years ago, and I do not believe the light should be concealed but that medical men should investigate and find out what the truth is.

DR. M. H. LACKERSTEEN: I should feel disposed to suggest the appointment of a committee to examine into the uses of hypnotism; this committee is to prevent the abuse of it. That is looking at it from a forensic point of view in order to save society from the ignorant sensationalist; but I think a body of competent physicians should be appointed to investigate the subject in order to ascertain to what extent it might be used in medicine, and if there are any points of danger—which we can all imagine; we must first demonstrate and prove the conditions of danger so that harm can be avoided. As to my supposed enthusiasm in the matter, I am simply an experimental hypnotizer of only two years' standing. In my travels over this globe I have kept my eyes open, and have seen this thing going on around me; I have seen people who have denounced it, and in five minutes afterwards proved as susceptible to suggestion as possible. I recall the case of a lady who had pneumonia and sent for me. I told her that she no more had pneumonia than I had. Her nephew, who was a pretty well advanced medical student, had examined her and assured her that she was very ill with pneumonia—he had a great deal of knowledge but very little wisdom—fortunately she did not believe him. I did not give her any medicine, it was one of those self-limited diseases, and she soon improved. Any amount of medication on my part would very likely have done more mischief than good.

When I was on leave in 1865, in Cashmere, there were seventeen physicians on leave there. The cholera broke out in the Maharajah's domains. We received nominal returns of the sick, fresh cases, those who remained, and those who died. And the whole of the capital was supposed to be divided into seventeen divisions with a doctor in each division; and we volunteered our services. A large part of the district was overlooked, and in this part, controlled by native doctors, there were 50 per cent. of deaths to 50 per cent. of cures, while some of our energetic boys had only 17 per cent of cures. In reference to diseases about which we know very little, such as cholera, and of self-limiting diseases, of which we know more, great latitude of treatment is permissable. I had a case of a boy with scarlet fever, a lad ten years old, a spoiled boy. I was sent for in the morning and found his temperature 104°, his pulse 120, there was a scarlet rash on his face. I hypnotized him and sent him to sleep for six hours, first assuring him that he would be perfectly cool and comfortable when he awoke; and so he was. His temperature was normal, but the rash had gone down to his abdomen and as soon as he woke up he urinated to the extent of nearly a pint, and his bowels acted. I gave him as much water as he wanted to drink, hypnotized him again and sent him to sleep until the next morning, but the disease progressed all the same. This subject is very interesting and in some cases I dare say hypnotism might so affect the secretions and nutritive functions as to alter the pabulum of the microörganisms, and in that way influence their fecundity. We do not know everything, and I think we have a right and a duty to investigate and learn; but to be dogmatic about things of which we are ignorant I think is not worthy of us as a profession. As far as investigations are concerned I shall be glad to lend my aid in carrying out anything with the help of others, but I think we should try to understand this thing, there is a great deal in it to be known; and so far as knowing it but interdicting its practice is concerned, it reminds me of the inscription in the University of Egypt which says, "My son, learn magic but do not use it."

INTERNATIONAL MEDICAL CONGRESS.

On the Constant Galvanic Current in Gynecology.

(Translated from the French for THE JOURNAL.)

At the International Medical Congress at Berlin in August, Dr. Apostoli, of Paris, read a paper before the Section on Obstetrics and Gynecology, August Martin, of Berlin, President, on the use of "The Constant Galvanic Current in Gynecology," in which he arrived at the following general and summary conclusions:

1. The constant galvanic current finds its principal indication in gynecology in endometritis and fibroma; sovereign against circulatory and painful affections (amenorrhœa, dysmenorrhœa, and metrorrhagia) it is a powerful agent in arresting the evolution of benign neoplasms and in aiding in the absorption of peri-uterine exudates. It exercises a very salutary resolvent action in many peri-uterine phlegmasiæ and in certain catarrhal ovaro-salpingites, but it is inefficacious and even injurious in high dose, especially if the intra-uterine pole is negative, against the suppurative phlegmasiæ of the appendages.

Its variable intolerance, which will increase with the inflammatory state of the appendages, ought to serve as a valuable means of diagnosis to enable one to determine the existence and na-

ture of unknown or merely suspected peri-uterine liquid accumulations (bloody or purulent) and ought to serve, in this case, to hasten a delayed or declined surgical intervention.

2. The effects of the constant current are polar and inter-polar—the trophic and dynamic inter-polar action, which increases as the square of the intensity developed, is superadded to the polar action; this utilizes first each pole for a different end, as Apostoli has shown, then the calorific action developed by the passage of the current (for stimulating the interstitial circulation), and finally the antiseptic action of the positive pole, of which Apostoli and Laquerrière have given a recent experimental demonstration.

3. *High galvanic applications* employed in a variable manner, above 50 milliampères, according to the tolerance of the patient, and the various clinical indications, form the fundamental basis of Apostoli's method, and find justification: *a*. First in the utilization of the *circulatory drainage*, the direct consequence of the calorific action due to the resistance to the passage of the current, and proportional to the square of the intensity; *b*. In the *antiseptic* or microbicide action, which increases with the intensity developed; *c*. In the *rapidity* and *efficacy* of the effects produced, which are proportional to the square of the electric energy, according to a formula analagous to that of the measure of the energy of other natural forces: q. = ½ m. v 2; *d*. In the easier *general application* of the method to obstinate cases (hard fibromata and violent sub-peritoneal endometrites), and in young women; *e*. In the *prevention of return*, which, other things being equal, will be less to be feared, as the application shall have been the more intense.

4. If the vaginal application of the galvanic current (which is the method devised by M. Chéron for fibromas only, and since applied by A. Martin, Brachet, Ménière, Onimus, Carpenter, Mundé, etc.) gives results, they are very inferior to those of the *intra-uterine* applications, which must remain the *preferable method*: *a*. Because it utilizes, before all, the maximum of the current developed and of its energy; *b*. Because it utilizes the antiseptic action of the positive pole, which is wholly local, and which is consumed in the inter-polar circuit, and at the level of the negative pole; *c*. Because it often lays under contribution the derivative and caustic action of the intra-uterine application, thus treating by the same operation, either the simple endometritis or the endometritis, which, so often, complicates both fibromata and peri-uterine phlegmasiæ, and so assuring a more rapid, more complete, and more permanent cure; *d*. Because it conduces, better than vaginal applications, to the diminution of pain and renders the employment of high doses more tolerable, and finally assures a greater efficacy in making possible an increase of the applied intensity and of the sanguineous irrigation, which it induces.

5. Vaginal galvano-punctures, made at a depth of some milliameters (from two to five), by means of a filiform gold trocar, completely insulated except at the point, form the often very salutary complement of the intra-uterine therapeutics, originated by Apostoli, in better localizing the galvanic action and in rendering more efficacious the application of small or medium doses in certain cases.

6. The innocuousness of his intra-uterine therapeutics is established, first, by the parallel innocuousness of the chemical and bloody methods of intra-uterine treatment, and especially by the numerical data of statistics collected all over the world, and in particular by his own: From July, 1882, to July, 1890, he has made 11,499 galvanic applications, which are classified as follows: 8,177 positive intra-uterine galvano-cauterizations, 2,486 negative intra-uterine galvano cauterizations, 222 positive vaginal galvano-punctures, 614 negative vaginal galvano-punctures.

He has treated 912 patients, comprising 531 fibromata, 133 simple endometrites, and 240 endometrites complicated with peri-uterine phlegmasiæ, of which there were seen in *clinique* 313 fibromata, 70 simple endometrites, 163 endometrites complicated with peri-uterine phlegmasiæ; *in the office or city:* 218 fibromata, 63 simple endometrites, 85 complicated endometrites.

He has had three deaths attributable to operative errors (two galvano-punctures, one for sub-peritoneal fibroma and the other for an ovaro-salpingitis—and one galvano-cautery for ovarian cyst mistaken for a fibroma). He has seen thirty cases of pregnancy occur after intra-uterine galvanic applications.

BOOK REVIEWS.

A System of Oral Surgery. Being a treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, etc. By James E. Garretson, A.M., M.D., D.D.S., President of the Medico-Chirurgical Hospital and Emeritus Professor of Oral and General Clinical Surgery in the Medico-Chirurgical College; Dean of the Philadelphia Dental College; Surgeon in Charge of the Hospital of Oral Surgery; Member of the Philadelphia County Medical Society, etc. Illustrated with numerous wood cuts and steel plates. Fifth Edition, thoroughly revised, with additions. Philadelphia: J. B. Lippincott Company; London: 10 Henrietta Street, Covent Garden. 1890. Price $9.00.

Those who have been familiar with the former editions of this treatise upon oral surgery will anticipate that in the preparation of a new edi-

tion the author will have so re-cast and extended his labors as to include the latest literature, the latest improvements and the most approved methods pertaining to oral surgery and dentistry. In this respect there will be no disappointment. The purpose of the volume is to show what dentistry is, when practiced from the stand-point of oral surgery.

The present work contains over thirteen hundred octavo pages. Through the courtesy of other authors, by cuts which are familiar, and by the help of a large number of original drawings, it is well illustrated. In appearance, it is creditable to the publishers.

The description and surgical anatomy of the head including its muscles, vessels, nerves and glands occupy the first one hundred pages. Then follow chapters upon the mouth, the teeth, and upon dentition. The lesions of first dentition and their treatment constitute a chapter of value to the general practitioner as well as to the specialist. Another hundred and more pages are devoted to second dentition, to diseases of the teeth and to their treatment. Then follow a series of chapters upon operative and prosthetic dentistry, with ample illustrations.

The writer associates with oral surgery facial and pharyngeal disease, diseases of the nose, nerve lesions, tumors of the mouth and face, etc., and concludes with a chapter upon medical diagnosis, preliminary to the study of anæsthesia and the use of anæsthetics and antiseptics. The mastery of the subjects here considered will bring the physician and the dentist into inseparable relations, upon a common ground.

MISCELLANY.

LETTERS RECEIVED.

Dr. W. T. Easley, Greenville, Ill.; Dr. W. E. Brown, Gilbertville, Mass.; Dr. T. D. Brooks, Piqua, O.; Dr. S. L. Jepson, Wheeling, W. Va.; The Traveler's Insurance Co., The Plimpton Mfg. Co., Hartford, Conn.; Dr. X. C. Scott, Cleveland, O.; Dr. R. J. Dunglison, Dr. J. B. Imhoff, The S. S. White Dental Mfg. Co., Med. Dept. University of Pennsylvania, Dr. W. B. Atkinson, Philadelphia; Dr. G. W. Lowry, Hastings, Mich.; Dr. D. H. McMasters, Pryorsburg, Ky.; W. H. Davis & Co., Keokuk, Ia.; Henry Gray, F. W. Norstrand, The Home-Maker Co., D. L. Dowd, Richard Terhune, I. Haldenstein, J. H. Bates, Thos. Leeming & Co., Jas. F. Madden, New York City; Dr. F. H. Wiggins, Pitchfield, Mass.; Dr. C. W. Rook, San Antonio, Texas; Dr. W. J. Delahanty, Worcester, Mass.; Dr. L. S. Trowbridge, Detroit, Mich.; Women's Medical College, Dr. C. A. L. Reed, Cincinnati, O.; J. H. Chambers & Co., St. Louis Medical College, Battle & Co., Dr. H. C. Dalton, St. Louis, Mo.; University of Michigan, Ann Arbor, Mich.; Dr. W. C. Townes, Dr. Frank Trester Smith, Chattanooga, Tenn.; Dr. C. G. Bacon, Fulton, N. Y.; Dr. W. M. Orr, Fall Creek, Tenn.; Dr. W. D. Hamilton, Columbus, O.; Dr. A. W. Campbell, Montreal; Milwaukee County Hospital, Wauwatosa, Wis.; Chicago Medical College, Chicago Policlinic, Dr. A. Church, Dr. A. E. Rockey, Chicago; Dr. C. Glisan, Portland, Ore.; Dr. Jerome Cochran, Montgomery, Ala.; Dr. J. D. Middlebrooks, Brownsville, Ga.; Dr. J. N. Russell, Mason, West Va.; Dr. W. J. Haine, West Farmington, O.; Dr. L. W. Baker, Baldwinville, Mass.; Dr. C. S. Stewart, Amite City, La.; Dr. Carl H. von Klein, Dayton, O.; Dr. T. Lothrop, Buffalo, N. Y.; Dr. J. G. McDougal, New Lexington, O.; Dr. D. F. Rugg, Hartland, Vt.; Dr. A. Vander Veer, Albany, N. Y.; Dr. F. M. Rockefeller, Anaconda, Mont.; Dr. C. E. Coulter, Ogden, Utah; Dr. J. S. Lindley, Seneca, Mo.; Dr. G. W. Miles, Oneida, N. Y.; Dr. J. B. Walker, Effingham, Ill.; Dr. S. B. Rowe, Rolla, Mo.; C. A. Kirkley, Toledo, O.; Doliber-Goodale Co., Boston; Dr. V. McDavitt, Quincy, Ill.; Dr. W. L. Williams, Ridgway, Pa.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from November 8, 1890, to November 14, 1890.

Capt. Louis A. La Garde, Asst. Surgeon U. S. A., detailed as member of board for duty in connection with the World's Columbian Exposition, and will report by letter to Major Clifton Conley, Ordnance Dept., member of the Board of Control and Management of the Government exhibit to represent the War Department. Par. 1, S. O. 260, A. G. O., Washington, November 6, 1890.

Capt. William D. Crosby, Asst. Surgeon U. S. A., is granted leave of absence for four days. By direction of the Acting Secretary of War. Par. 2, S. O. 259, A. G. O., Washington, November 5, 1890.

Lieut. Col. Charles Alexander, Surgeon, and Major Johnson V. D. Middleton, Surgeon, are appointed members of a board of officers, appointed to meet at the call of the senior officer thereof, at the rooms of the Board of Engineers, Army building, New York City, to examine such officers of the Corps of Engineers as may be ordered before it with a view to determining their fitness for promotion, as contemplated by the Act of Congress approved October 1, 1890. By direction of the Secretary of War. Par. 4, S. O. 261, A. G. O., Washington, November 7, 1890.

Col. Basil Moore, Surgeon, and Major George M. Sternberg, Surgeon, are appointed members of a board of officers, appointed to meet at the call of the senior officer thereof, in San Francisco, Cal., to examine such officers of the Corps of Engineers as may be ordered before it, with a view of determining their fitness for promotion, as contemplated by the Act of Congress approved October 1, 1890. By direction of the Secretary of War. Par. 5, S. O. 261, A. G. O., Washington, November 7, 1890.

Major Henry McElderry, Surgeon, extension of leave of absence on account of sickness granted in S. O. 214, September 12, 1890, from this office, is further extended two months on surgeon's certificate of disability. By direction of the Secretary of War. Par. 28, S. O. 263, A. G. O., November 10, 1890.

Major Stevens G. Cowdrey, Surgeon, leave of absence granted in S. O. 112, Dept. of Ariz., October 24, 1890, is extended fifteen days. By direction of the Secretary of War. S. O. 263, A. G. O., Hdqrs. of the Army, Washington, November 10, 1890.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending November 15, 1890.

Surgeon Thomas Owens, ordered to the Museum of Hygiene at Washington, D. C.

Surgeon H. M. Martin, detached from the receiving ship "Wabash," and ordered before Retiring Board.

Surgeon P. M. Rixey, continued in charge of Naval Dispensary at Washington, D. C., until November 20, 1891.

P. A. Surgeon E. H. Green, promoted to Surgeon November 10, 1890.

Surgeon Howard Smith, placed on the Retired List November 10, 1890.